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THE PRESENT STATUS OF THE INJECTION TREATMENT OF INTERNAL HEMORRHOIDS*

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According to Anderson, the injection treatment of internal hemorrhoids did not originate in America, as is generally recorded, but was first employed by a Mr. Morgan of Dublin in 1869. He used an iron perchloride solution, a method that had been used in the treatment of nevi. In 1871 carbolic acid was first used as an injecting agent by a quack named Mitchell at Clinton, Illinois. Mitchell kept his formula a secret, but sold it to a number of non-medical "pile curers." Because of the type of man which employed the method, whatever good results might have been obtained were overshadowed by the notably poor ones, and the medical profession naturally was very strongly against it. So extensive was its use that Professor E. Andrews of Chicago as early as 1876 was able to collect the results in 3,300 cases. From one of the quacks to whom Mitchell sold his secret, Professor Andrews obtained the formula. He learned that Mitchell used one part carbolic acid to two parts of olive oil. The secret having been laid bare by Andrews, a great many medical men, ethical and otherwise, gave the method a trial. It took, however, a generation of time for the prejudice brought about by the traveling "pile-curer" to disappear to a point where ethical men felt free to lend their endorsement.

Dr. Carter F. Martin, a prominent proctologist of Philadelphia, began its use in 1899. Four years later he read a paper on the subject before the American Proctologic Society. He used a proprietary phenol solution, and limited its use to internal hemorrhoids. Practically all the solutions for the next fifteen years contained phenol in some strength.

In 1914 E. H. Terrell of Richmond began employing a five per cent solution of quinine and urea hydrochloride. He had noted while using a two per cent solution of quinine and urea hydrochloride as a local anesthetic into the skin or cellular tissue that a marked fibrous edema was produced which lasted several days. Therefore, when using the drug as a local anesthetic in anorectal operations and observing this reaction, it occurred to him to utilize this agent in the same manner as phenol had been employed in the treatment of internal hemorrhoids. He found, however, that stronger solutions were necessary to get the effect in a vascular tumor. In 1916 upon reporting his first series of cases he recommended quinine and urea hydrochloride as a substitute for phenol. His results in this series were quite remarkable as the hemorrhoids had disappeared under this treatment, without any of the complications such as sloughing and hemorrhage, that had been so common heretofore with the phenol method. The agent in addition had a peculiar and lasting anesthetic effect, which rendered it ideal for the purpose.

Since Terrell's introduction of quinine and urea hydrochloride the injection method of treating internal hemorrhoids has rapidly gained in favor in this country. However, at the time he reported his first series of cases before the American Proctologic Society he was severely criticised by many members of that distinguished organization, most of whom have since changed their position and employ the method to some degree.

Other leading proctologists in America endorse the method highly. However, without exception its use is limited to uncomplicated internal hemorrhoids. Jerome Lynch states that while the method is not popular because it has been exploited by quacks, it has been taken up seriously by the regular profession and very good results have been obtained in the hands of careful men. Charles D. Aaron's experience with the injection treatment has been satisfactory in a large number of cases; his objection to the method is that it requires a much longer time than does surgery. Hill's experience with quinine and urea hydrochloride has been most gratifying. He feels that the method is certainly to be preferred whenever operation is out of the question. He uses the method but prefers operation unless refused or contraindicated. Goldbacher says that he has never seen a case of internal hemorrhoids treated

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properly by the injection method yield untoward results. Buie approves the method, that is, if there is a selection of cases and the method is properly carried out. Pruitt has written freely on the subject, and is quite positive in his statement that the injection method is preferable to operation in properly selected cases. Hirshman has used the method many years in private practice, and has found it satisfactory. He uses quinine and urea hydrochloride, but he believes it is much more rational to remove the hemorrhoids by a clean cut surgical operation under local anesthesia.

In England the treatment has had a wider use probably than in this country. However, there phenol in strengths varying between five per cent and twenty per cent has been used as the principal injecting agent. According to Morley, the treatment was introduced into England in 1888 by Swinford Edwards. Morley probably did more than any surgeon in his country to clear away the opposition to the method. During the war he began to employ the method at St. Mark's hospital to soldiers and war workers. He found that because of a crowded condition of the hospital wards, that many cases of piles had to wait months before they could be admitted for operation. They would come to the out-patients' ward because of bleeding and pain and not infrequently were disabled from work because of their hemorrhoids. His attention having been called to the injection treatment, he decided to try it more as a palliative measure, but he was surprised to find that when these men returned to the hospital for operation, their hemorrhoids had disappeared and operation therefore was unnecessary. He gradually came to treat a very large number of cases of internal hemorrhoids by means of injection, and only recommended for admission and operation cases where there were complications such as fissure, fistulae, etc. In his publication on hemorrhoids, he states that after years of experience with the method he is convinced that the cases in which treatment by injection is contraindicated are quite exceptional, and that recurrence is no more common after injection than after operation. He has used the method in thousands of cases, but believes that it requires special instruments and skill and experience; he does not think it should be attempted by those who have only a few opportunities for its employment, but strongly recommends it to rectal surgeons. Another English surgeon, Dr. James Eadie, stated in 1921 that he would relegate to operation only those few cases in which for some reason the speculum can not be introduced without a general anesthetic, or when an anesthetic has to be given for some intercurrent condition. Mummery feels that it is not as good a method as operation and should not be used unless there is special contraindication to operation. He believes, however, if the treatment is carefully carried out, that there is little, if any, danger in it.

The more recent literature, that is since 1925, shows undoubtedly the rapid growth in favor of the method. Terrell in May, 1925, stated in a paper before the American Proctologic Society that the former prejudice against the injection treatment was being dispelled, as men of undoubted character and professional standing are announcing their satisfaction from its use. He warned, however, that there are many possibilities for error in injecting hemorrhoids and that the inexperienced operator will hardly carry out the treatment to completion without trouble of some kind.

Rolfe in an article, March, 1928, after observing results at the Boston dispensary, believes that while the method has its limitations in uncomplicated internal hemorrhoids, it gave them satisfactory results in a high percentage of cases.

ADVANTAGES OVER OPERATION

Fansler, in reporting 2500 cases, sums up the advantages over operation by stating that there is no loss of time from work; the injection is less painful and disagreeable than operation; many patients will submit to this form of treatment when they refuse point blank to be operated upon, and, therefore, it serves as a means for relieving their sufferings; it may be used in a large number of patients whose physical conditions would contraindicate operation.

COMPLICATIONS

Morley in over 3,000 cases tabulated complications of every character as follows:

(1) Severe pain in ½ of 1%.
(2) Secondary hemorrhage in ¼ of 1%.
(3) Minor sloughing in 2.0%.
(4) Perineal abscess, 1 case.
(5) Irritable bladder, 1.0%.

He states that he has never heard of any trouble from the oil finding its way into the circulation, nor has he ever had any trouble from hemorrhage at the time of the injection.

A. E. Chase of New York, discussing a paper by Terrell, in a plea for the operative method of hemorrhoids, said that he had only seen two deaths

in several hundreds of operations. The first was due to a gas bacillus infection along the peritoneum and scrotum after a so-called sterile water anesthesia in the clinic. The second death occurred in a man where quinine and urea hydrochloride anesthesia had been used.

Buie has encountered a number of cases of sloughing coming to the Mayo Clinic, that had been injected elsewhere. A slough, however, denotes faulty technic, and most men who use the injection treatment admit that those cases of sloughing they have had in their own practice have been in their early cases, before their technic was developed.

RECURRENCES

Terrell believes if proper selection of cases is made and if the technic is faultless, that cures approximating 100% will be obtained.

Compared with operation, Pennington estimated that ten per cent of the patients referred to him for operation have been operated on two or three times. Martin, in 4200 cases treated by injection method, had about fifteen per cent recurrences in three to five years. Crivelli of Melbourne, in 1929, in recommending the injection treatment, stated that the only drawback is the possibility of recurrence, but that this also happens after operation. However, the injection method is so simple that the patients are well content to submit to other injections, when they will rarely submit to another operation. At the Boston Dispensary, Rolfe reported in 1925 recurrences in a small number of cases, usually one to three years after treatment, but they were due almost invariably to an insufficient number of injections. They employed five per cent quinine and urea hydrochloride and saw no complications of abscess formation, sloughing, or hemorrhage.

POINT OF PREFERENCE FOR INJECTING SOLUTION

Difference of opinions as to how piles should be injected is noteworthy. Most surgeons using phenol solutions usually inject into the submucosa and not into the pile mass. Where quinine and urea hydrochloride is employed, deeper injections are the rule. Personally I favor a five per cent solution of quinine and urea hydrochloride and inject into the submucosa at the base of the pile mass into what someone has called the stalk of the varicose loop.

PATHOLOGICAL REACTION

Duke studied the tissue changes caused by phenol injections. In ten subjects, one pile tumor was injected as usual, and this injected mass with a control not treated, was later excised, the interval between injection and incision ranging from one to twenty-one days. He decided that phenol, being a powerful irritant, initiates an aseptic inflammation, characterized by dilatation of vessels, emigration of leucocytes, and transudation of lymph. By these means, the alien fluid is diluted and removed; thereafter the inflammation quickly subsides. All the changes observed microscopically represent the effort of the tissues to repair an injury. The inflammatory changes in the first three days do not play any important part in the cure of hemorrhoids; it is the secondary changes, in particular the intra-vascular clotting and subsequent fibrosis, to which any beneficial effect must be ascribed. Pruitt points out in discussing Duke's conclusions, that he believes that the early inflammatory changes that occur in the first three or four days account for the secondary change or subsequent fibroses, and gives the principal credit to the early inflammatory changes for the cure of the hemorrhoid.

Morley, who uses phenol, states that his observations indicate that oil remains unabsorbed for a considerable time and sets up an aseptic inflammatory reaction between the mucous and muscular coats of the rectum with subsequent formation of dense scar tissue which binds these coats closely together. The oil while still standing in position and distending the mucous membrane keeps up a continuous pressure on the vessels of the pile mass, and the scar tissue which forms at a later stage must tend by its contraction to obliterate any vessels which have escaped the effects of the pressure of the oil.

GENERAL COMMENT

Since it is generally agreed that internal hemorrhoids without complications constitute the only type suitable for the injection treatment, it is absolutely essential to have a sufficient knowledge of the anatomy of the rectum, not alone to know how and where to inject, but that the operator will be able to properly select the hemorrhoids suitable for treatment. Internal hemorrhoids should be easily recognized because they are always covered by mucous membrane and are innervated only by sympathetic fibers. The spinal nerve supply is distributed to the anal skin and tissues below the anorectal line. Therefore, the injections are made only in a practically painless area. It has already been brought out that the injections should never be made in the presence of rectal ulcer, fistulae, strangulated unreducible hemorrhoids, or in any

active inflammation or new growth. Terrell, in summing up one of his early papers on the subject, stated that the injection treatment of hemorrhoids appears simple, but a thorough knowledge of rectal diseases is essential if one expects uniformly good results. Most important of all is the realization of the class to which it is suited and its limitations.

In preparing this paper there has been no effort to bring out the advantages of one drug over another or to endorse any particular technic. Because prejudice against the injection treatment has existed so long and in some quarters continues to exist, it was believed well to review the opinion of today of leading proctologists regarding this method of treatment. There can remain no doubt that the proctologists of this country and England have accepted the injection treatment as having an undoubted place in rectal therapy and that they believe the theory of its use is sound in principle and works out in practice. Therefore, a wider knowledge of its principles and indications should result in a more general adoption of the method. Surgery, however, will continue to be the ideal treatment in a large percentage of cases.

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DISCUSSION

Dr. Jack Halton, Sarasota:

I could take five months instead of five minutes as allowed by this Association and still be discussing the injection treatment of hemorrhoids. It was my pleasure and honor to be associated with Dr. Terrell, of Richmond, Va., from the inception of the idea of using quinine and urea for this work.

Long before that time I had worked with Dr. Collier F. Martin of Philadelphia, who with his father, had been using the injection method for years, with success, in thousands of selected cases, that refused operation. He was using a preparation (French) called Phenol Bo-Boufe.

The injection method appealed to me for the simple reason that by the use of these solutions, accompanied by a proper technique one could take a poor man, who did not have time to go to a hospital and who had no money to pay for an operation, put him on the table, give him a treatment and get him back to work in five or six minutes. By following up this method, repeating the injections every four or five days for a period of four to six weeks, the patient could be discharged perfectly well.

I will not go into the action of quinine and urea for Dr. Robinson's paper fully explains that. Quinine and urea used in a five per cent solution is sure to clear up the trouble.

Yes, some men do manage to get sloughing in the treatment of hemorrhoids by the injection method, but bear in mind this condition only ensues where an improper technique is followed. Sloughing occurs only where the fluid is shot through the hemorrhoidal vein and into the rectal muscle or into the true skin below the pectineal line (Hilton's White Line). Gentlemen, if you do this you will get into trouble every time. Put the fluid into the vein. For, as you withdraw your needle, should you notice very much blood escaping, you have gone into the wrong spot and will not get the results you are looking for. Your puncture has been made too deep and in the wrong direction. That is why there are so many failures in this class of work.

The method of Dr. Terrell is to inject not at the base of the pile, but high up and well into the pile itself. In this way he gets his best results, and no sloughs. I have been following this method of work since 1914 and have had no sloughing except in my first few cases where I made the injection too low or into the muscular tissue, but I was not long in perfecting my technique thereby making it impossible for sloughing to occur.

As I said before, you will get slough if your technique is faulty. I have been using quinine urea from 1914 up to about two years ago, when I tried some experimentation with the phenol and oil solution of which I will speak later. As Dr. Robinson states in his paper, the injection treatment of hemorrhoids has had, and still has, a hard and rocky road to travel. We men who took it up in the early days had a fight on our hands. We could not mention the use of the injection method without bringing down upon our heads a storm of protest from men who had never tried the method, men who were merely prejudiced against it, or men who had, through faulty technique, or carelessness, and poorly prepared solutions, failed to succeed.

I was on the floor of the American Proctologic Society when Dr. Terrell first advanced his idea of the use of quinine and urea for the cure of hemorrhoids. Dr. Rawson Pennington of Chicago, a great proctologist and one of the leaders in our line of work, stated that he was surprised that any Fellow of the American Proctologic Society would have the assurance to advocate or advance the idea of the cure of hemorrhoids by injection; that there was only one way to get rid of hemorrhoids and that way was by surgical methods; that the injection method was an emanation from the brains of quacks, charlatans, and commercial so-called "pile curers," and that he considered that to advance the idea was taking a step backwards in progressive proctology.

The following year Dr. Pennington admitted at the annual meeting of the American Proctologic Society, that he had been wrong and that he was then using quinine and urea in some selected cases that refused surgical procedure.

For the past three years I have been combining the use of quinine and urea with a five per cent solution of phenol and oil and with this combination, I have found no need for the selection of cases, as all types of internal hemorrhoids are amenable to this method of treatment. Of course, strangulated cases require pre-injection care and treatment. Such pathology as anal fissure, skin tags,

tight sphincters, infected crypts, should be treated and surgically removed.

If phenol is used, inject into the mucosa and not into the pile mass. When you get a striated appearance of the hemorrhoidal tissue slowly withdraw the needle and if no blood follows, you have made a successful injection and are bound to get results. Don't inject only one cc. of the solution, but go wherever you find any loose tissue in the rectal pouch. Go up two inches or more and inject all the loose tissue you find. A five per cent solution of phenol in oil, properly compounded, will do the work.

I should like to go over my experience and give case reports in the treatment of anal prolapse by this method. I first used it only in selected cases but experience has taught me that it can be used successfully in all forms of internal hemorrhoids and anal prolapse.

Dr. J. W. Snyder, Miami:

I wish to commend Dr. Robinson for his very conservative evaluation of the injection method for the treatment of hemorrhoids.

Surgical removal of hemorrhoidal varicosities may be employed in any type of case, but, as has been stated, the injection method is only suitable to certain types of internal hemorrhoids and not at all to the external pile. The internal hemorrhoid should not be markedly prolapsed or thrombosed or infected or ulcerated. It should be of moderate size and there should be no other complicating rectal pathology. If the internal pile is treated and an external pile left, recurrence of the internal varicosities is very certain. We must, however, recognize the patient's viewpoint and if relief is possible without surgery, he should be given the benefit of such measures as will secure palliation at least and in many cases produce a permanent cure.

I believe the injection method requires much more skill and judgment than surgical removal of hemorrhoids. In expert hands excellent results can be obtained but the dire results often seen with sloughing of tissue, gangrene of the rectum, abscess, rectal prolapse and stricture formation, all tend to emphasize the fact that expert knowledge and experience are highly desirable.

I wish lastly to congratulate Dr. Robinson on his attainment of this very necessary ability.

Dr. L. F. Robinson, Ft. Lauderdale (concluding):

I want to express my appreciation of the liberal discussions of Drs. Halton and Snyder. I am firmly convinced that the injection treatment of internal hemorrhoids is preferable to operation in a large number of cases and that the indications for this type of treatment will sooner or later be extended to cover the treatment of almost 100% of internal hemorrhoids. But let me sound a warning. Given a case of hemorrhoids it is far better to have the case operated upon by a surgeon of little experience than injected by an inexperienced practitioner. In other words, I believe the injection treatment in the proper hands is one of the greatest advances in the treatment of hemorrhoids, but in the wrong hands is a dangerous method.

NEWER KNOWLEDGE OF NUTRITION*

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Prior to the beginning of the present century the opinion seemed to prevail that the physiology of nutrition had reached a point beyond which there was little possibility of progress. The subject was thought to have been thoroughly investigated and as a result it was regarded as offering little opportunity for further study for some time at least. Absurd as it may seem, this unique attitude exists at the present time concerning certain phases of nutrition.

At the beginning of the present century, the existing knowledge of nutrition was based almost entirely on the chemistry of living tissues. The analyses which had been made established that the body of an animal or the tissues of a plant were, in the main, composed of proteins, carbohydrates, fats and a large amount of water in addition to a number of inorganic elements in different forms. The fats were studied chemically and much was learned concerning their conversion into fatty acids and their saponification in the process of digestion; the carbohydrates were examined and their inversion into simpler sugars was also learned by chemistry. The proteins, however, were soon found to be more complex in structure and the progress made with them was not so rapid or satisfactory. In any event, the consistent presence of these substances in the tissues of animals and plants established them as fundamental factors in the diet of animals and the proportions in which they should be present in food became the subject of deep study and wide discussion by students of nutrition. Moreover, they formed the foundation of the study of the entire subject.

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Various articles ordinarily used by man as food were diligently analyzed as sources of these nutritional elements and a vast amount of information was accumulated. Long lists of food-stuffs were compiled and classified by Voit, Atwater and the famous Liebig, but it seems that none of these investigators ventured beyond chemistry in their efforts to determine the value of these articles of food.

As long as the study was confined to the utilization of chemistry to elicit information, the progress was necessarily limited and modern students of nutrition regard it as remarkable that the chemical results were not checked by feeding experiments on animals, especially when evidence existed in the literature of the day that a diet which was chemically correct was often unsatisfactory for the nutrition of man.

When it was realized that chemistry had distinct limitations in the problem of nutrition, investigators turned to animal experimentation for the purpose of acquiring further knowledge. It had been realized for hundreds of years that certain diets of stale food caused scurvy among sailors, soldiers and prisoners. Moreover it was also known that fresh vegetables and fruits would promptly cure scurvy. As a result vessels embarking on long voyages were required to include an adequate supply of lime juice in their stores before leaving. It is said that this requirement still remains in the regulations of the British Board of Trade and is the origin of the sobriquet, *Limey*, which was applied in a jovial spirit to the British soldiers by their comrades in the allied armies during the recent war. Nevertheless, no concerted effort was made to determine the cause of this disease or ascertain why the therapy was so effective until the second decade of the present century.

Beri-beri had also been known to exist for many years and the Japanese demonstrated beyond doubt that it was due to dietary deficiency by noting the incidence of the disease aboard a ship that embarked on an eight months' cruise under Admiral Takaki as compared to another ship which was sent on a similar cruise over the same course with an improved diet furnished to the men.

Again it was many years after before a solution of this problem was approached. It was in 1897 that Professor C. Eijkman, of the Department of Hygiene of the University of Utrecht, undertook to determine whether or not the diet of polished rice, so universally used in the Orient, was the specific cause of beri-beri. He fed pigeons and chickens on a diet of polished rice and in a few weeks produced a type of paralysis that, in almost every way, simulated beri-beri in man, and thus earned the credit of being the first investigator to produce a dietary deficiency disease experimentally.

As a result of his studies the first knowledge that the rice bran, which was removed in the process of polishing, contained a protective substance was revealed and this led to the introduction of the term vitamin.

Funk, who confirmed the experiments, suggested the name for this important essential element.

As a result then of these animal experiments our first real worthwhile information was acquired concerning the accessory food factors now recognized as being so important in the prevention and treatment of diseases of nutrition. The study had reached a point where we were about to acquire information concerning factors which were known to exist, but which were imperfectly understood. From that time on the popularity of the study knew no bounds and the observations of the earlier investigators opened up a field of research which is now replete with many spectacular achievements. On the other hand, unscrupulous purveyors of foods have grasped the opportunity to take advantage of a public which is extraordinarily gullible if one is to judge from the present day trend of advertising. Much misinformation has been disseminated concerning the mysterious substances spoken of as vitamins, and it seems desirable to discuss some of the more legitimate advances which have been made concerning these factors. At the present time, studies which have been made of the accessory food factors essential to normal nutrition and to the prevention of various deficiency diseases have revealed the existence of six independent vitamins. The first of these is the vitamin A.

Vitamin A. This vitamin is fat-soluble and is frequently referred to as the antixerophthalmic, antiophthalmic or anti-infective vitamin. Experimental and clinical investigation have revealed the fact that it is essential for growth, resistance to infection, and is a potent factor in reproduction. Animals or children who are deprived of this substance over any great period may develop a characteristic softening, cloudiness and finally necrosis of the cornea which is spoken of as xerophthalmia and keratomalacia.

This condition is said to be analogous to "night blindness" which is observed among Eskimos and certain Japanese coolies and can be cured by the administration of cod liver oil which is rich in vitamin A.

This vitamin also is a most important factor in the prevention of infections of the respiratory system. It increases resistance to sinusitis, coryza and other upper respiratory infections. It is also believed to prevent infection of the intestinal mucous membrane. It is associated with the vitamin D in the prevention of osteomalacia, osteoporosis and rickets.[1-2] Deprivation of vitamin A has caused degeneration of some nerve bundles.[3]

The generally accepted sources of vitamin A at the present time are milk, eggs, liver, cod liver oil and the green and yellow pigmented vegetables. As a general rule cod liver oil is most frequently used as a source of this vitamin in the diet of young children. Numerous studies have been devoted to this particular vitamin and some of the more recent reports seem to indicate that we are on the threshold of obtaining valuable information concerning it.

Ten years ago Rosenheim and Drummond[4] published an important communication in which the possible relationship of vitamin A to the carotinoid pigments was discussed. While pointing out that the vitamin could not be identified with any familiar carotinoid, they suggested that some unknown pigment might be involved, or that the vitamin might be formed from a carotinoid by the action of light, as was later proved with ergosterol. Although considerable evidence existed to show an association between carotin and the vitamin A in their natural sources, the work of Drummond and Coward[5] and of Stephenson[6] showed that crystalline carotin, if carefully purified, was ineffective when supplied to rats as the sole source of fat-soluble vitamins. Interest in the problem was again reawakened by a reference of Drummond, Channon and Coward[7] to the pigmented nature of cod liver oil concentrates, but eventually the identification of ergosterol as being the source of vitamin D gave rise to the speculation that this sterol, rather than a carotinoid, might also be the parent of vitamin A.

As a result of a contribution by Euler, Euler and Hellstrom,[8] fresh evidence as to the vitamin A activity of the carotinoids has been made available. It is pointed out that the earlier work on this subject took place before the separate existence of vitamin D and A was realized. Since both these vitamins as well as the B factor are now considered necessary for sustaining normal growth, it seems possible that the apparent inactivity of carotin in earlier work might well have been due to the absence from the test diets of adequate supplies of vitamin D. Upon testing crystalline carotin as a source of vitamin A in conjunction with a basal diet adequate in vitamin D, the Swedish workers have observed resumption in the growth of rats on dosages as low as 0.005 mg. per rat per day.

Apart from such direct biologic evidence, chemical similarities between the carotinoids and the vitamin can be traced. Both the pigments and the vitamin resist saponification and are destroyed by oxidation or exposure to ultraviolet irradiation. On treatment with the antimony trichloride reagent, moreover, somewhat similar blue colorations are produced. Euler and his coworkers, realizing the importance of this side of the problem, have made these colorations the subject of a detailed spectroscopic examination.

It is well known that the carotinoids give to butter its characteristic color. Thus far no function had been definitely ascribed to carotinoids, although they were known to produce a yellowish discoloration of the body designated as carotinemia.

In view of the possible relationship, in butter fat, of color to the protective action against a pellagra-like syndrome in dogs, experiments were carried on by Underhill and Mendel with both egg yolk and carrots as a substitute for butter fat. The results have demonstrated that egg yolk conveys a certain degree of protection but is not as effective in alleviating the syndrome when it is once initiated. So impressed were these investigators with the efficacy of carrots as a curative agent, that they adopted as a working hypothesis the possibility that the effective agent is either this natural pigmentary substance or some unidentified compound associated with it.

Moore[9] recently experimented with two samples of carotin supplied him by Dr. von Euler and Dr. R. A. Morton, of Liverpool University, and supported the claim that this substance may prove active as a source of vitamin A. He showed that it is effective in sustaining a good growth in rats when supplied in the minute dosage of 0.01 mg. daily.

Thus the study of the relation of carotin to the vitamin A continues and adds to the interest in this first food factor as well as the studies which have shown that it is so important in the prevention of infection.

Vitamin B. In contrast to vitamin A, this vitamin is never associated with fats or oils of either animal or vegetable origin, and while it has long been known to be the cause of polyneuritis in man and in experimental animals, it has only been recently that interest was awakened in this vitamin. It has been shown that it has a dual nature, so that it has become necessary to designate one portion of it as the vitamin B_1 or F and another B_2 or G. Therefore the original vitamin B may now be spoken of as possessing characteristics of two distinct vitamins. Recent studies in pediatrics have indicated that foods which were deficient in vitamin B_1 are often responsible for troublesome anorexia in infancy and early childhood. When an adequate amount of vitamin B_1 is introduced into the food, the loss of appetite is frequently overcome and the growth and development of the child improves at once. Hoobler's[10] studies in this connection have been so convincing that many pediatrists are beginning to believe that unless we provide an adequate amount of vitamin B with the carbohydrate which we add to the infant's formula, we are not giving our patients the benefit of our newer knowledge of nutrition. Hoobler found that when certain patients had anorexia, loss of weight, spasticity of the arms and legs, rigidity of the neck, restlessness, pallor and a low hemoglobin, that they were suffering from a vitamin B deficiency. All of these conditions cleared up promptly when vitamin B was added to the diet. Our interest therefore in this particular vitamin has now gone considerably beyond the knowledge that it is capable of producing beri-beri in adults and in young children.

The chief source of vitamin B_1 is the wheat and corn germ, yeast and the polishings removed from rice. It also occurs to a smaller extent in vegetables, milk, lean meat and liver.

The vitamin B_2 or G as it is sometimes spoken of in honor of the late Joseph Goldberger, is the anti-pellagric vitamin. In rats, its absence results in lesions, similar to those occurring in human pellagra.

It is believed by many that pellagra is due solely to its absence in the diet. In any event, it is certain that this is at least one of the predisposing causes of the disease. It is also found in wheat and corn germ, yeast and the other sources of the vitamin B_1.

Vitamin C. The practice of introducing orange juice into the diet of infants represents perhaps the oldest attempt on our part to supply an accessory food factor in our feeding cases. Indeed orange juice and the juice of other citrus fruits are rich in this vitamin, but other sources which have proven to be equally rich have been discovered in recent investigations. As has been previously mentioned, for example, the lime has always been regarded as a rich source of vitamin C, but we have been shown recently that lemons are superior. Going further than this, Kohman, Eddy and Gurin[11] have dispelled the belief that carrots, celery and head lettuce are superior as sources of vitamin C. It has also been discovered by Zilva[12] and his coworkers that whereas fruits and vegetables are generally effective in curing and preventing scurvy, there are not only marked differences between various species but also between varieties within a species. It is well therefore to vary the routine of utilizing orange juice or tomato juice in the prevention of scurvy and occasionally introduce other sources of this vitamin such as fresh fruit, lemon juice, cooked apples, and green vegetables. The latter, however, should not be regarded as potent a source of this vitamin as the juices of citrus fruit or tomato juice.

Astonishing as it may seem, scurvy is still encountered in large clinics, more often than would be expected in view of our possession of specific means to prevent it. Recent studies, however, have also shown that vitamin C is an important factor in the development of the teeth and in the prevention of early tooth decay.

Vitamin D. Of all the vitamins which have been discovered, the fat soluble vitamin D is the one which has received the greatest amount of study. It has now fully earned the title of the anti-ricketic vitamin. For many years cod liver oil was regarded as the principal source of this vitamin, but independently of each other, Hess[13] and Steenbock[14] and their associates began experiments that showed that various foods, such as oils, milk, cereals, flours, green vegetables and human and calf skin, etc., could be endowed with specific anti-ricketic properties merely by subjecting them to ultra-violet radiations. About the same time Huldschinsky was working to the same end in Germany.

The important linking of these two potent factors concerned in nutrition opened up the possibility of eliciting the real nature of vitamins. Hess and Weinstock and associates[15] and Windaus and Hess,[16] by means of chemical analysis and spectral absorption tests, determined that it

is ergosterol, a sterol closely allied to cholesterol, which is activated by the ultra-violet rays in this remarkable way.

With the revelation of the fact that ergosterol could be activated by ultra-violet radiations, it naturally seemed possible to create a substance which could contain anti-ricketic properties in a highly concentrated form. This ambition was soon realized with the perfection of irradiated ergosterol prepared according to the requirements of the Alumni Research Foundation of the University of Wisconsin. The Council on Pharmacy and Chemistry of the American Medical Association considered it desirable to designate this substance viosterol.

In a short while, however, it was realized that although viosterol supplied the vitamin D in a concentrated form, it was still desirable to use the vitamin A in conjunction with the vitamin D.

Vitamin D deficiency is probably more easily demonstrated in experimental animals than in any other way.

Of the experiments which have been performed none have been of greater interest than those of the Mellanbys[17] of England. After a study lasting five years they proved that puppies, in which rickets had been induced by the deprivation of fat-soluble vitamins, showed imperfect dentition. The teeth of such animals were small and irregular, and frequently discolored, while histologic examination showed that the development of both dentine and enamel was defective. Further research established beyond doubt that this imperfect dentition in puppies was due to the lack of vitamin D. This conclusion was supported by examination of the deciduous teeth of children.

No fewer than 1,036 of such teeth were examined histologically. The general belief has been that the majority of deciduous teeth are normal, but Mrs. Mellanby showed that by far the greater number of them present signs of defective development of dentine. Moreover, the teeth obtained from the dental clinic were more defective than teeth from children of middle-class families. This fact supported the view that defective dentition was due to a diet deficient in fat-soluble vitamins, for one of the chief faults in the diet of the lower classes is the inadequate supply of animal fats. Recently a report of the continuation of this study was made by Mrs. Mellanby and Pattison.[18]

One of the unique things about the vitamin D is the fact that it may be introduced into the body otherwise than through food. Just as ergosterol and other foodstuffs are capable of acquiring anti-ricketic properties, so can the body. The value then of sunshine in nutrition, especially in the prevention and cure of rickets, is so thoroughly established and has received so much comment that it requires little mention here.

Vitamin E. This is a fat-soluble vitamin otherwise referred to as the anti-sterility vitamin. It is essential for reproduction. While lack of vitamin A causes failure of ovulation, the lack of Vitamin E causes failure of placental function. It probably is stored to a limited extent and the best sources are vegetable oils and fresh lettuce. Of all the vitamins, this one seems to have attracted the least interest because of the belief that it is acquired by the average adult in the most ordinary of diets.

Conclusions. These, then are some of the conspicuous contributions to the vast amount of literature which has accumulated during the past decade on nutrition. Notwithstanding the fact that greater progress has been made in the present generation in nutrition and the prevention of nutritional deficiency diseases, there are many problems which remain to be solved. Any assumption that the study has reached a point beyond which there is little possibility of progress as was believed at the beginning of the century, can be considered nothing but a delusion. Almost every day research penetrates another veil of mystery surrounding the vast number of problems connected with nutrition, and it is reasonable to suppose that this will continue. Certainly no one today would be so bold as to make the assertion accredited to the great surgeon Syme of Edinburgh who told Lister that it was very unfortunate that he was coming into surgery at a time when there was no possibility of advancement of the art. In any event, our knowledge of the food accessory factors seems to justify the following impressions:

1. The vitamin A is capable of increasing resistance to infections, especially of the upper respiratory system and the intestinal mucosa. It is necessary as an adjunct to the vitamin D in the cure and the prevention of rickets.

2. Too little attention has been paid to the importance of including vitamin B in the diet of infants and young children. Adequate evidence seems to indicate that it is capable of overcoming anorexia, loss of weight and evidence of anemia.

3. The prevalence of scurvy in certain large centers does not seem to be fully appreciated.

There seems to be a slight increase in its incidence which may be explained by economic conditions, notwithstanding the fact that orange and tomato juice have been advocated for many years as a routine addition to the diets of infants.

4. Vitamin D in the form of irradiated ergosterol has justly earned the designation, the antiricketic vitamin. The addition of vitamin A, however, improves its effect.

5. The Mellanbys seem to have presented incontrovertible evidence that carious teeth are frequently the result of the same factors responsible for the development of rickets, but the importance of vitamin C in the prevention of carious teeth cannot be underestimated.

6. Rickets is more prevalent than has ever been supposed before modern methods of eliciting it were perfected. It is believed that the present economic condition will be responsible for a further increase.

7. It has been shown that rickets can be very much reduced by improving the diet of the mother during the pre-natal period and period of lactation, although rickets is chiefly a post-natal condition. Advantage should be taken of all the newer knowledge of nutrition in our post-natal care.

One of the discoveries of the White House Conference on Child Health and Protection was the fact that we were in possession of a large amount of worthwhile information to assist us in dealing with problems of nutrition, but that we were utilizing only a small part of this information at the present time.

If I have in this comparatively brief discussion of our newer knowledge of nutrition awakened an interest and encouraged you to seek further information, I will be very much gratified.

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BRONCHIAL ASTHMA AND ALLERGIC RHINITIS*

REVIEW OF LITERATURE AND NOTES ON OCCURRENCE IN SOUTHERN FLORIDA.

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Many victims of bronchial asthma trek their way to southern Florida seeking surcease from their affliction during the long winter months, so it behooves us, as physicians, to find out what opportunities for relief are afforded by this widely heralded winter resort.

In this paper I wish to review some of the current ideas and facts pertaining to asthma and allergic rhinitis, and to discuss fifty cases observed in the Miami area.

Definition and Etiology: That asthma and allergic rhinitis are symptom complexes which are manifestations of fundamental allergy in an individual is generally acknowledged by most clinicians dealing with this type of illness. However, one may well paraphrase the song writer and ask, "What is this thing called allergy?" Though the meaning of the term is subject to differences of opinion, for practical purposes the term may be applied to conditions of specific hypersensitiveness with the exception of anaphylaxis in lower animals. The characteristic symptom complex must be produced by contact with a particular agent foreign to the body and must be abolished when this contact is interrupted. Rackemann[1] has defined additional characteristics of allergic individuals as follows: The presence of other manifestations of allergy in the same patient, a positive family history of allergy, positive skin tests and eosinophilia.

The usual argument produced to rout the conception of asthma being an expression of allergy is the fact that attacks may be excited by such a

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variety of non-specific influences such as nasal irritations, emotional and psychic disturbances, atmospheric and barometer changes, over-exertion, fatigue, over-eating, flatulence, menstruation and pelvic disorders.

Baldwin[2] has recently emphasized the role that vagus nerve stimulation may play in the mechanism of attacks of asthma brought on by these non-specific stimuli, on the basis of conditioned reflex acts. Cooke[3] groups these together as "reflex asthma" and states that this heterogeneous group of excitants acts only in individuals in whom the bronchial mucous membrane and smooth muscle fibers of the bronchi have acquired the habit of reacting as a result of previous attacks due to true allergic influences. *The fact that many of these cases no longer respond to non-specific stimuli after the primary specific reaction has been treated is the best proof that non-specific influences are not the fundamental causes of the asthma.*

The hypothesis that hayfever and asthma is a type of alkalosis has been advanced by Beckman[4]. As presumptive evidence he reminds us that asthma or hayfever may disappear in diabetes, starvation, pregnancy, acute infections, sea voyaging and high altitudes, all of which conditions are accompanied by a degree of acidosis. He believes that the effects of calcium therapy may be explained by a shift in the blood acid base balance toward the acid side, thus overcoming an alkalosis. On theoretical grounds, these various facts may be easily criticised, but it is interesting to note that he can quote 67 per cent of 237 cases of hayfever relieved of symptoms by the simple administration of nitrohydrochloric acid internally. This hypothesis is of further interest in connection with the results reported by Brown[5] in the treatment of food sensitization. Brown used at first hydrochloric acid, and attributed his beneficial results to a digestant action on the ingested protein in the diet. He later used citric acid, with equally good results. Sansum[6] even advocated the use of large quantities of citrus fruits, in place of citric acid, stating one can obtain in the stomach a hydrogen-ion concentration sufficiently high clinically to take the place of hydrochloric acid. Obviously, if citric acid when metabolized produces a shift toward alkalosis, then the results obtained from its use are an argument against the condition of alkalosis being productive of symptoms of hayfever or asthma.

In establishing a diagnosis of asthma or allergic rhinitis, it is of prime importance to obtain a complete history as in some cases the etiological factors in the condition will be indicated better than by skin testing. The environment should be described in detail. So-called colds and recurrent attacks of bronchitis, and even pneumonia, in children or infancy may frequently be interpreted as expressions of allergy in an individual who presents in adult life a frank bronchial asthma. Close interrogation is needed frequently to disclose whether a patient's symptoms are seasonal or perennial in type. The relation of symptoms to the ingestion of various foodstuffs should be minutely inspected. The inclusion of all these facts in the history is of extreme importance, as every allergist has emphasized, and will prevent making foolish mistakes.

ANALYSIS OF FIFTY CASES

I have made an analysis of fifty unselected private cases of asthma and allergic rhinitis that have been under my observation during the past four years. Twenty-one had both asthma and allergic rhinitis, while twenty-three had asthma only, and six had allergic rhinitis only.

Age: One of this group was eight years of age, six were in the second decade, twenty-one were between 20 and 40 years, sixteen were between 40 and 60, while the remaining six were over 60 years of age.

The age of the initial attack was under ten years, however, in five cases. As a general rule asthma is acquired in early life, while true hayfever is not manifest until later life. However, it is known that many children may exhibit mild symptoms of hayfever and go for years undiagnosed. Asthma may begin at any age of life.

Sex and Race: There were 22 males and 28 females, but in any large series the proportion is about equal. These patients were all American born, excepting one family of four from the Bahamas.

Heredity: In only twenty-five patients was a record made concerning the question of antecedent asthma or hayfever in the family. Eleven cases or 44 per cent gave a positive history of allergy in the parents which corresponds to the figures of 48 per cent and 60 per cent given by Cooke[3] and Balyeat,[7] respectively. In regard to heredity, it has been demonstrated by Cooke, Balyeat and others that hypersensitiveness is transmitted as a dominant characteristic according to the Mendelian law, and that the offspring of allergic individuals are not born allergic, but that

the age at which allergy becomes manifest is earlier if both parents have a positive history; in other words, the closer the relationship and the more complete, the earlier is the manifestation. An outstanding example of the influence of heredity is shown in the family mentioned above born in the Bahamas. Four members of this family are under my care because of asthma or hayfever. The mother, aged 47, and three of her four children are affected. Furthermore, her own mother and a paternal aunt and uncle had asthma.

Effect of Climate and Season: Although twenty-one patients had their initial attack while in southern Florida, most of them also experienced asthma or allergic rhinitis when in other states at later dates. Careful questioning did not bring out any evidence on the whole that they were more subject to attacks in the Miami area, as only two patients could definitely make the statement, and at least three others were sure their winters here gave them fewer days of symptoms. Thirty-seven of the fifty cases were unable to state that one season of the year affected them more than another, whereas ten patients had their symptoms mostly in the fall and winter (October to March, inclusive), and three others were free from symptoms in December, January and February only.

Complications and Associated Diseases were as follows: Menopause 2, eczema 1, scleroderma 1, cholelithiasis 2, hypertension with myocardial damage 5, arteriosclerosis and cataract 1, diabetes 1, chronic nephritis 2, chronic nephritis and pulmonary tuberculosis 1, pulmonary fibrosis 19, pulmonary fibrosis with myocardial damage 3, bronchiectasis or pulmonary abscess 1, congenital-ankylosis of jaw 1, Sydenham's chorea 1, irritable colon 5. Only one patient had a possible history of syphilis, and in this case the Wassermann was consistently negative. However, neoarsphenamine was used because of a complicating Vincent's infection. In twenty-six cases the Wassermann was negative, and not determined in the others.

One or more of the accessory nasal sinuses was diseased in 16 cases, but in only five was the sinus operated, and in 7 cases septum resection was performed. In 9 patients the condition of the sinuses was not recorded.

Skin Tests: Positive reactions to scratch or intradermal atopens were found in 34 cases, but in 9 cases testing was either incomplete or not done at all, and in only 7 cases were the skin tests entirely negative. Usually more than one positive reaction was obtained. (See Table 1.)

TABLE 1.

SUMMARY OF POSITIVE SKIN TESTS IN 41 PATIENTS.

ATOPEN	REACTIONS	ATOPEN	REACTIONS
Short ragweed	9	Chicken feathers	4
Wheat	8	Horse dander	4
Rabbit hair	7	House dust	4
Baccharis	6	Timothy	4
Natal grass	6	Egg (whole)	4
Dog hair	6	Kapok	4
Orange	5	Bermuda grass	4
Beet	5	Goose feathers	4
Cat hair	5	Milk	4
Giant ragweed	5	Corn	4
Duck feathers	5	Orris root	4
Sheep wool	5	Cattle hair	4

Reactions to other substances occurred less than 4 times among the group.

An incomplete though practical pollen survey of the Miami area was made with the cooperation of Mr. O. C. Durham, covering a two-year period. The complete report of the survey will be published elsewhere but note should be made that there is very little ragweed pollen found in southern Florida, so that it is safe to say that this area is safe for patients sensitive to ragweed.

Basal Metabolism: This determination was made in only 8 cases, and ranged from –10% to –29%, excepting one patient with plus 11 per cent.

Blood Calcium: In seventeen cases the serum blood calcium was determined by the Kramer-Tisdall permanganate titration method, and was found to range from 10 to 13 mg. per 100 cc. of blood, which is within the normal range. It is of interest that Ramirez[8] found in a large series most blood calcium determinations within normal range, and in the cases where it was below 10 mg. per 100 cc. of blood, he could note only temporary improvement in the allergic symptoms by means of calcium therapy, even in the cases where the blood calcium was raised to normal levels. Furthermore, more recent studies by Greenberg and Gunther[9] of the diffusible calcium present in the blood in allergic subjects have failed to show any definite tendency to a lowered calcium.

Eosinophilia: An eosinophilia ranging from 9 to 23 per cent appeared in the blood of five patients, while in five others there was no increase, and in the balance it was not recorded. In a few patients eosinophiles appeared in the sputum. It should be borne in mind that eosinophiles may appear in the nasal secretions, and even in the conjunctival secretions in an allergic subject.

TREATMENT AND RESULTS

Various measures of treatment were followed in these patients. In discussing the results of treatment, the word "cured" is not used, but ten

cases were classed as obtaining good results, and 19 obtained partial relief. No treatment was given 8 patients for various reasons. In five others the results of treatment are not known at this time, due to insufficient time of treatment. In 7 patients the treatment was of no avail. Four patients died while undergoing treatment.

Pollen desensitization was less frequently needed than would be expected were it not for the facts produced by our local pollen survey. Grass pollen (Bermuda and Johnson) desensitization produced good results in four patients and fair results in three others.

Elimination of offending Allergens: The simple elimination of rabbits from the environment produced a good result in one patient who was markedly sensitive to rabbit hair extract. Another patient was sensitive to wheat only, and lost her cough when all wheat was removed from the diet.

The elimination of foods which showed a positive skin test together with the use of a pollen air filter produced an excellent and immediate rsponse in one patient with asthma of seven years' duration. Three patients have shown a fair amount of improvement by the use of diets in which the common symptom producing foods were left out. The use of Rowe's elimination diets[10] was a factor in determining what were the offending foods, even when negative skin tests were obtained.

Vaccine Therapy: This measure was not used alone, but in combination with other measures, so it is difficult to estimate its true worth. Usually autogenous vaccine was used, the different organisms included being determined by the response to skin tests with the separate antigens prepared from the sputum. Most allergists are agreed that in cases of asthma with respiratory infection (bacterial asthma), the use of an autogenous vaccine is of definite benefit. In two cases good results were secured by the use of a streptococcic vaccine prepared by Dr. E. C. Rosenow supposedly for influenzal infections. Though other measures were used, the response to treatment in these two patients seemed to begin only when the vaccine was started.

Surgical Treatment: Removal of nasal polyps and surgical eradication of sinus infections, together with the use of vaccines produced a fair degree of relief in six patients. In trying to estimate the value of removal of focal infections and other disturbances of the nose and throat, Rackemann and Tobey[11] reviewed the data of 1074 asthmatics, 28 per cent of whom had operations on the nose and throat without regard to the cause of the asthma as found. They suggest that the local lesions of the nose and throat may develop from the same fundamental cause as the asthma itself. They found the gross results of treatment disappointing, affording permanent relief in about 5 per cent of cases. Hansel[12] has made a detailed study of the histopathologic changes occurring in the nose and sinuses in allergy, and he concludes that nonsuppurative or hyperplastic sinusitis should be considered as allergic sinus disease until proved otherwise, and should be treated conservatively and in conjunction with the treatment for the allergy. But, he also found that surgical treatment is frequently indicated to restore function in the nose and eradicate infection. (He found the consensus of opinion is that bacteria are secondary invaders). Radium should be used to control edema, hyperplasia and polypoid formations.

X-ray Treatment: X-ray treatment to the chest and spleen was used in five stubborn cases of asthma without notable improvement except tem-patients with productive cough were given iodides has had few advocates and was used empirically.

Medical Treatment: All patients were taught the proper use of adrenalin and ephedrine, and patients with productive cough were given iodides if tuberculosis had been carefully excluded.

Calcium preparations were given empirically to some cases, either alone or coincident with injection of parathormone (parathyroid extract-Collip) in an effort to alter the blood calcium concentration. Otherwise the only drug commonly employed was aspirin.

SUMMARY

1. Some of the recent literature pertaining to bronchial asthma and allergic rhinitis has been reviewed.

2. Fifty cases observed during the past few years in Miami area reveal no striking differences from cases studied in other parts of the country, except the lowered incidence of strictly "pollen cases."

3. The Miami area is safe for ragweed sensitive patients.

4. An attempt has been made to evaluate the various forms of treatment.

5. Only ten cases or 20% obtained relief classified as "good", under varied forms of treatment, while 19 cases or 38% obtained "fair" results.

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ENDOSCOPY*

An Aid in the Diagnosis and Treatment in Disease of the Throat and Thorax.

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History

Bronchoscopy is a little over thirty years of age. In 1897, Gastor Killian removed a foreign body from a bronchus. In 1898, the first bronchoscopy was done in the United States by Algernon Coolidge, Jr., a professor of Harvard Medical School working at the Massachusetts General Hospital. He used an open urethroscope, a head mirror and reflected sunlight and removed through the already present tracheotomic fistula a portion of a hard rubber tracheotomic cannula from the right bronchus of a man aged 22 years.

A distally lighted bronchoscope was developed about 26 years ago, and since that time it is estimated that over two hundred thousand endoscopies have been done in the United States.

In the early days of bronchoscopy, the procedure was used almost exclusively for the removal of foreign bodies. External surgery for foreign bodies in the large bronchi near the root of the lung was attended by such high mortality that bronchoscopy was welcomed. External surgery was resorted to only at the periphery of the lung and after abscess formation. In those days bronchoscopy was attended with considerable mortality, but its mortality was much less than that of thoracotomy. Perfection of the technic, the development of team work, the elimination of a general anesthetic and the solution of the mechanical problems, has brought bronchoscopy to such a degree of perfection that 98 per cent of foreign bodies may be removed through the bronchoscope with a mortality of but little over one per cent.

When it was found that practically no mortality was attached to the mere insertion of a bronchoscope into the bronchi, the development of its use in pulmonary disease of other than foreign body origin came rapidly. At present two per cent of the endoscopy represents foreign bodies, 98 per cent being for the diagnosis and treatment of disease.

Clerf, writing on "The Progress of Endoscopy," states it has become apparent during the last few years that the recognition of the importance of bronchoscopy for diagnosis and treatment in disease has resulted in an enormous increase in the proportion of this type of case as compared with those in which a foreign body is involved. Chevalier Jackson believes the reason for the phenomenal success of bronchoscopy in disease is the restoration of the defensive power of the lungs. Bronchoscopic researches have demonstrated that the deeper bronchi are practically sterile, and that the bacteria are increasingly numerous as the larynx is approached. As bacteria laden atmospheric air necessarily reaches the alveoli, the observation justifies the inference that the defensive power of the lung destroys the bacteria. Two obvious elements in this defensive power are the cough reflex and the ciliary action. It is by assisting in this defense, by bronchoscopic attack on the invading host from the rear, that the wonderful results of bronchoscopic aspiration in early suppurative pulmonary disease seem to be obtained.

In dealing with the subject of bronchoscopic suppuration, Dr. Jackson says, "It is probable that drainage of superficial foci of suppuration was done with a flint in the hands of the caveman. It is reasonably certain that this was done by the ancient Peruvian. Hippocrates preached and prac-

*Read before the annual meeting of the Florida Midland Medical Society, Orlando, October 8, 1930.

ticed drainage of pus and since his time drainage has been fundamental in surgery. Bronchoscopic aspiration is the same in principle: the new thing about it is the discovery that with the bronchoscope, suppurative foci can be drained through the mouth harmlessly and without general anesthetic. There is an abundance of clinical evidence at the Bronchoscopic Clinic justifying my opinion that the fundamental factor in all pulmonary pathology is impaired defensive power of the lung due to impaired drainage and deficient aeration. By bronchoscopic drainage we take the load off the cilia and restore spontaneous drainage; we reestablish the defensive power of the lung. I may be a visionary, but when I see the massive atelectasis, et cetera, I cannot but feel that the first resort in the future will be not to opiate and other antibechics, but to bronchoscopic aspiration, to restore spontaneous drainage instead of hindering it by the continued administration of drugs that paralyze the cough reflex."

Looper summarizes his article on Endoscopy: The laryngoscope, bronchoscope and esophagoscope should be more generally used as a diagnostic aid, and the fact should be impressed on the medical profession that endoscopy has a much broader field than merely for foreign body cases. It is surprising how many laryngologists do not even own a direct laryngoscope and do not attempt the simplest endoscopic examination. As much skill is required in removing foreign bodies, this field should be left to those who are particularly qualified, but the average specialist should take advantage of the usefulness of per-oral endoscopy as an aid to more accurate diagnosis in lesions of the upper air and food passages.

Carcinoma

It is now generally acknowledged that carcinoma of the bronchus is more frequently observed than formerly. If this represents an actual increase or whether it is a relative increase due to more accurate diagnostic methods can not be definitely determined.

The clinical picture is so varied that no definite symptom complex is said to be characteristic. If any improvement is to be accomplished in the treatment of these cases, it must depend upon more early diagnosis.

Jackson and others reported fourteen cases in which the diagnosis was made bronchoscopically and corroborated by histologic study in which the diagnosis could not have been made by any other means. They consider bronchoscopy as the method of diagnosis that is most certain and one that should always be employed.

In conclusion, the writers state that the evidence suggest that carcinoma of the lungs, which in the great majority of cases originates in a bronchus, is increasing in frequency.

These bronchial tumors appear to have a relatively low malignance; hence, the hope that an early diagnosis and intensive roentgen-ray and radium therapy may be effectual in at least prolonging life.

Shall reports a diagnosis of bronchial carcinoma which was positively made by bronchoscopy and biopsy in five cases. He concluded that primary carcinoma of the bronchus is not an uncommon disease. Bronchoscopy offered the best means of establishing an early diagnosis of a malignant condition of the bronchi. Patients with obscure conditions of the chest should have the benefit of close cooperation of the thoracic surgeon, internist, roentgenologist and bronchoscopist, acting as a group.

Vinson, Moeisch and Kirklin reported seventy-seven cases of primary cancer of the lungs. In twenty-nine of these, a positive diagnosis was made during life by the examination of tissue removed from the bronchus. These observations confirm the statement now generally accepted, that bronchoscopy is the safe and most exact method of making an early diagnosis.

Lung Abscess

In lung abscess the bronchoscope is again an important factor in the diagnosis and treatment of these cases. In treating cases where the diagnosis has been made early the results are almost spectacular. I have seen cases clear up rapidly after two or three bronchoscopic treatments. In cases of long standing many treatments are necessary.

Clerf, in reporting a series of seventy-seven cases, states that in thirty-eight patients that were cured, the average number of bronchoscopic treatments was sixteen.

He concluded: "Bronchoscopy is indicated as a diagnostic measure in every case of pulmonary abscess in which there is a question in diagnosis. Bronchoscopic aspiration, as a part of the conser-

vative form of treatment, should be instituted early in the disease unless contraindicated; in the hands of an experienced bronchoscopist contraindications are few. No definite rules can be laid down with regard to length of time bronchoscopy should be continued; every case of abscess of the lung should be individually considered by the internist, roetgenologist, surgeon and bronchoscopist to determine the form of treatment to be employed."

Asthma

Unquestionably the diagnosis and treatment of asthma has been greatly augmented by bronchoscopy. Ramirez and St. George believe that bronchoscopy is of undoubted value in the so-called non-allergie forms which are associated with chronic bronchitis and bronchorrhea. The benefit derived is not from the removal of the thick, adherent mucus and the bronchial medication alone, but also from the vaccines prepared from the bronchoscopically removed secretions free from oral contamination. Autogenous vaccines prepared in this manner seem to be more effective than those prepared from the sputum.

Before an asthmatic patient is accepted for bronchoscoptic treatment, systematic studies should be made to elicit all possible etiological factors. The investigations should include a roentgen-ray study of the chest and a rhinologic examination as well as the usual allergie tests.

Clerf believes that certain patients with asthma, especially those in whom there is a chronic tracheobronchitis or definite suppuration in the lung, respond favorably to the bronchoscopic aspiration of the secretion.

Bronchiectasis

Bronchiectasis is another lung condition that must be diagnosed early if we are to do anything for these unfortunates. When of long standing they can be improved but relapses are frequent.

The means to establish an accurate diagnosis of bronchiectasis in its early stages are the uses of iodized oil and pneumography. There are various ways of getting it into the bronchi, but the bronchoscope has the advantage of inspecting the field, aspirating the secretion and placing the oil in whichever bronchus is diseased.

There is unquestionably a marked relationship in the etiology of bronchiectasis and disease of the nasal accessory sinuses. No study of a patient with bronchiectasis is complete unless a careful and painstaking examination of the nasal accessory sinuses has been carried out. There are abundant clinical observations supported by experimental studies which indicate that chronic diseases of the nasal accessory sinuses is a factor in the production of bronchiectasis. Clerf writes: "Examination of a patient complaining of chronic cough with or without expectoration is never complete until a careful study of the nasal accessory sinuses has been carried out; a negative opinion on sinus disease should not be given until every necessary diagnostic means has been exhausted. Every patient complaining of unexplained chronic cough or in whom a questionable diagnosis of bronchiectasis has been made should receive the benefit of diagnostic bronchoscopy and pneumographic studies. Irrespective of the etiologic relationship, treatment for a co-existing bronchiectasis and suppurative sinusitis is not complete unless it is applied in both conditions."

There is so much that can be written that I have purposely left out saying anything about the esophagus for fear the paper would be too long.

Conclusions

1. For bronchoscopic diagnosis it is necessary that the eye be trained to recognize the color, form and movement of the bronchi in health, so that any departure from the normal is at once recognized.

2. Without question there is a great and important field for per-oral endoscopy in examination and treatment of disease of the throat and thorax, and should always be used where indicated.

3. Diagnosis can often be made with the bronchoscope of a thoracic disease that can not be made by any other means. This is especially true of beginning bronchial neoplasms, foreign bodies, abscess of the lung and bronchiectasis.

4. It is the best conservative treatment for lung abscess, and the percentage of cures are higher than by any other form of treatment used today.

5. There is no shock, a mortality almost nil and in the hands of an experienced bronchoscopist, contraindications are few.

6. Every patient complaining of an unexplained chronic cough or in whom there is a questionable diagnosis, should receive the benefit of a diagnostic bronchoscopy.

CHRONIC ENDOCERVICITIS*

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Around the subject of endocervicitis a very extensive literature has accumulated. So much has been contributed to this subject that we often wonder if there is anything fresh or important left to be said. Yet there is a general belief that no small part of what has been written requires revision in the light of modern inquiry as conducted by the various investigators. The wealth of teaching in the text-books is too often impersonal, and represents a legacy flowing from one's ancestors rather than a fortune newly won by hard endeavor.

Endocervicitis as a clinical entity was not recognized until bacteriological studies demonstrated that the endometrium is usually free from bacteria and the pioneer work of Billings and Rosenow, establishing the possible dangers from chronic foci of infection, taught us the importance of eliminating chronic infection from the cervix. The demonstration of joint lesions in rabbits injected with organisms grown from chronically infected cervical glands of a patient suffering from arthritis shows definite relation chronic endocervicitis bears to systemic conditions.

Since the pathology of diseases of the cervix is based so largely on the histologic peculiarities of that organ, it might be well to review briefly its structure and function, particularly in relation to those of the uterine body. Embryologically, the cervix is developed from the second portion of Muller's duct, union being effected at the internal os. The cervical mucous membrane is composed of complicated racemose glands which empty through small ducts into the cervical canal; their lining epithelium is of the high, cylindric, goblet cell type, and their secretion is true mucus. In addition, the cervical mucosa is thrown into definate folds radiating from a central line, the whole constituting the so-called arbor vitae. Toward the external os, the ciliated epithelium undergoes transition into the laminated type which covers the intravaginal portion of the cervix; toward the internal os, the glands become less arborescent and the whole cylindric epithelium is lower, so that a transition is gradually effected into the corporeal endometrium, which consists of simple glands lined with cuboidal epithelium, lacking the corrugations characteristic of the endocervix, and secreting a serous instead of a mucus discharge.

Equally important is the lymphatic structure of the cervix and the uterine body. The lymph current may be traced from its origin in the cervical and corporeal mucosa through minute, funnel-shaped ostia, directly to the myometrium, where it branches into an extensive capillary net which penetrates every bundle and fascicle of the entire uterine musculature, later draining into the main collecting channels which course parallel to the uterine and ovarian blood vessels at the base and top of the broad ligament.

Functionally, the cervix acts merely as a passive communicating channel to the vaginal outlet.

Careful laboratory studies, culminating in the work of Curtis, have proved quite definitely that the internal os acts as a barrier against practically all invading organisms except the gonococcus, so that while infection of the endocervix is frequent, infection of the corporeal endometrium is rare and is practically never of intrinsic origin. The comparative histology and function of the two structures make these facts obvious, and it need not be emphasized that the complicated structure of the cervix, particularly in the light of its frequent exposure to trauma and external infection is an ideal medium for the growth of bacteria, or that its lymphatic system furnishes an ideal route for the upward extension of local infection.

The causation of chronic endocervicitis is far from clear. A large percentage of the cases are no doubt due to specific infection, some from direct contact and some from a childhood infection which was possibly so mild that it passed unnoticed then, but, after lying dormant for years, was fanned into activity at a later date or paved the way for another type of infection, as is frequently the habit of the gonococcus. The normal external os has to some extent the faculty of the internal os of prohibiting the entrance of pathogenic bacteria; but when injuries occur, such as lacerations from childbirth or, less frequently, from careless instrumentation, this is no longer the case, and the gaping, open os and the exposed mucosa due to the resulting eversion offer an easy avenue of access for whatever bacteria may be present. Whether the colon bacillus figures through a blood stream infection or by an ascending route we do not as yet know, but it is a significant fact that a large number of these patients give a history of extreme constipation. Predisposing causes are to be found in any general con-

*Read before the Palm Beach County Medical Society, West Palm Beach, 1926.

dition, such as anemia or tuberculosis, which, by lowering the patient's resistance, makes her an easy prey to bacteria which under normal conditions would hardly be pathogenic.

Practically all types of bacteria may be identified in chronic endocervicitis, but certain types are predominant. Of these, the gonococcus is the most common, although frequently it cannot be identified in spite of repeated tests and exposures, because of its tendency to burrow deep into the cervical tissues and remain dormant for years, or because it may itself have died out and have been replaced by a later infection of a different type. The streptococcus, the staphylococcus and the colon bacillus are generally agreed to be next in order of frequency, and mixed infections are not uncommon.

Pathology—The gross picture of endocervicitis may differ in intensity, but is for the most part typical. The cervical mucosa appears red, swollen and more or less everted, and there are circumscribed areas of glandular proliferation about the external os. The columnar epithelium of the canal may have pushed itself out on the vaginal aspect of the cervix and it may have over-grown or completely replaced the stratified epithelium normally present, producing the so-called erosion, which, as has been repeatedly pointed out, is in no sense an ulceration but merely new cell formation resulting from the proliferation of the lymphoid tissue within the canal. Hypersecretion of the cervical glands, which results both from the prolonged vaginal contact and from the distorted structure, results in turn in hyperplasia of the cervical connective tissue. The occluded glands, which may be actually plugged by tenacious mucus as well as by the overgrowth of the squamous epithelium, or by hyperplasia of the periglandular tissue, and the cyst formation, which is not infrequent, add to the hypertrophy, so that the cervix may be several times its normal size. The microscopic picture, which concerns us only incidentally, will vary from mild inflammatory changes in the stroma and excess of glandular tissue to marked cystic changes and even multiple abscess formation.

Pelvic manifestations are more usual in the ovaries than in the tubes, and parametritis is frequent, particularly in association with posterior cellulitis. It is difficult to estimate what percentage of these lesions, especially the degenerative changes of the ovary characterized by an insidious development, could be traced to an ascending lymphangitis; but, in view of the complicated lymph system that I have already described, it is obvious that a fair number of such infections are of primary cervical origin.

The symptoms of endocervicitis are varied and are often complicated by the fact that, when the patient reaches us, we are dealing not only with endocervicitis but also with associated or resulting pathologic changes that may entirely overshadow the original lesion. The most constant symptom is a leukorrheal discharge, usually odorless, varying in quantity and varying also from a thin, mucoid secretion to a highly colored, purulent one, as is nearly always the case in gonorrhea, but always characterized by its tenacity. Menstrual derangements are not uncommon, being the result of a secondary hyperplasia, a circulatory stasis, or a secondary ovarian involvement. Backache is not ordinarily present unless there are associated displacements or parametrial involvement, particularly posterior cellulitis, with extension to the uterosacral ligaments. Sterility is a frequent complication, owing to the plugging of the cervical canal by tenacious mucus or the thickened cervical mucosa, or the destruction of the spermatozoa by purulent secretions. Constipation is frequent, and systemic manifestations will vary according to the severity of the disease.

Since the leukorrheal discharge and the gross cervical picture are in most instances pathognomonic, diagnosis does not ordinarily present many difficulties. Tuberculosis and syphilis of the cervix, both comparatively rare conditions, may be differentiated by the history and the general physical and laboratory examinations, as well as by the fact that normally in both the tendency is toward destruction of tissue rather than proliferation. Smears should always be made and cultures if necessary, in an endeavor to identify the infecting bacteria, and in suspected malignant diseases, laboratory studies are essential for a differential diagnosis, which is imperative in view of the radically different treatment necessary in each instance. It goes without saying that infection of the lower genital tract and of the upper pelvis should be carefully differentiated also.

The recognition that chronic endocervicitis is a menace to the future health of the patient has led to renewed efforts to secure an effective cure. Thus far very little has been accomplished in the way of prophylactic treatment. Local applications with silver nitrate, tincture of iodine, etc., have no doubt been useful in certain cases, but the

results have more often been unsatisfactory.

Some brilliant results have been reported by Rottenberg and Schwartz. In their technique the cervix is partly amputated or rather a hollowing out of the cervix, thereby getting rid of the proliferation and finally a reconstruction of a new canal. Some investigators, however, doubt the wisdom of such a procedure during the childbearing period.

Favorable results have been reported from diathermy, while radium in small doses has many staunch followers.

I think when we consider the pathological changes found in cases of chronic endocervicitis, we realize that the treatment instituted must be to destroy or remove the abnormal proliferation of cell and restore the cervical canal to its normal relation if it is to be effective. For some time I have followed the technique described by Davis. After inserting a suitable bivalve speculum the mucous discharge is thoroughly removed with cotton. A small cautery tip is placed firmly against the tissue to be destroyed and the current turned on. When a sufficient depth is reached, the tip is moved so as to make a line through the diseased tissue. In some cases it will only be necessary to cauterize the glands near the external os, in others the disease will extend to the internal os. If, at any time, the patient complains of discomfort, the current control is released and not applied again until she is comfortable. This process is repeated until a sufficient number of cautery lines have been made. Cysts are destroyed in a similar manner after puncturing with the heated tip. An effort is made to reach the depth of the gland so as to destroy the chronically diseased tissue. Most cases of endocervicitis may be treated in the office; the pain is slight and it is only in the very nervous patient, or one requiring very deep cauterization, that a general anesthetic is necessary. One thorough cauterization results in early relief of symptoms and there is complete healing in six or eight weeks. If, however, the treatment is superficial, a second may be necessary after four weeks.

After cautery treatment the discharge is increased for about ten days. The patient is warned that the next period will be more profuse than normal.

I find mercurochrome in 5% solution a useful germicide and is used at weekly intervals until healing is complete.

Women approaching or past the menopause are more liable to cervical cancer, and radical treatment may be indicated. Sometimes total hysterectomy is a conservative procedure provided the patient is a good surgical risk.

CONCLUSION

Endocervicitis is recognized as a distinct clinical entity.

The relation of chronic endocervicitis to systemic conditions has been definitely proven.

In chronic endocervicitis the tendency is a proliferation of tissue rather than destruction.

Chronic endocervicitis is often the forerunner of other pathologic changes in the pelvis.

Destroying diseased tissue with cautery causes early relief of symptoms.

MEETING OF THE FLORIDA DERMATOLOGICAL ASSOCIATION

Chairman, C. A. ANDREWS;
Secretary, J. F. WILSON.

The regular quarterly meeting of the Florida Dermatological Association was held in Tampa the week-end of October the fourth. Those in attendance were, Elmo D. French, Miami; J. L. Kirby-Smith and J. F. Wilson, Jacksonville; C. A. Andrews, W. C. Blake, R. G. Nelson and J. J. Saxton, Tampa.

During the morning hours there was a clinic at which were presented sixteen interesting and unusual diseases of the skin.

Following a luncheon given by Doctors Andrews and Saxton at the Hillsborough Hotel, there was a round table discussion.

CASE NO. 1.—LUPUS ERYTHEMATOSUS.
(Presented by Dr. C. A. Andrews)

M. R. S., white male, age 32, merchant. First seen on November 27, 1924. Duration, four months. He had at that time two typical lesions, one on left side of face and one near the outer canthus of the left eye. A diagnosis of lupus erythematosus was made and he was advised to have an infected tooth removed. Carbon dioxide snow was applied for five seconds.

Next seen on March, 1925, five lesions present. Kromayer light under pressure was applied to each lesion for two minutes. On April 13, 1928, he was seen by Dr. Kirby-Smith who suggested the use of gold sodium thiosulphate. He has had three separate courses of this drug of ten injec-

tions each. His skin was practically clear on August 4, 1930, but he has returned at this time with recurrence. This patient had a diagnosis of syphilis made by another physician, but I doubt if it is correct as I have never been able to corroborate it.

DISCUSSION

Dr. French: I agree with the diagnosis and believe tuberculosis is the cause in this case. Certain lesions about the neck have the appearance of sarcoid and lesions on the extensor surfaces of the forearms remind one of a tuberculid.

Dr. Saxton: There is some doubt as to whether it is psoriasis or lupus erythematosus. I would think that it is lupus erythematosus.

Dr. Wilson: It is a case of lupus erythematosus, but its resemblance to psoriasis is marked.

Dr. Kirby-Smith: I agree with the diagnosis of lupus erythematosus. It seemed to me when I saw this patient three years ago he had typical bat-wing lesions. We should investigate the tuberculosis origin thoroughly. The remarks that Dr. Saxton made brought to my mind that this case has the appearance of psoriasis and the configuration of syphilis and would suggest if possible that a biopsy be taken and a tuberculin test made.

Dr. Andrews (closing): Dr. Blake tells me that this man has active pulmonary tuberculosis and that the bacillus has been found in his sputum.

CASE NO. 2.

SEBORRHEA AND EPIDERMOPHYTOSIS.

(Presented by Dr. C. A. Andrews)

A. A. B., male, white, age —, dentist. This patient was first seen on March 18, 1926, and stated that he had this condition about 3-4 months.

The lesions at that time were located in the axillae, both groins, about navel, and some noted on his scalp, crust all over and particularly the hair margin in the region of the forehead.

The diagnosis at that time was both seborrhea and tricophuton infection. In my opinion they were both present.

The patient has been seen from time to time since the above date. He has been given various lines of therapy. Local applications with some quartz, and some X-ray. The quartz light apparently is most efficacious.

Seen June 15th, condition same.

The diagnosis was seborrhea of the head and epidermophytosis on the feet, genitals and rectum.

The lesions about the face are apparently healed at the present time. The one about the navel at times presents question as to the diagnosis. Those on the genitals, I believe, are a ringworm infection.

Distribution: At present, on scalp, ears, genitals, about navel, inguinal folds and feet.

Treatment and results: Various local applications, some X-ray and some quartz. The quartz apparently most efficacious.

DISCUSSION

Dr. French: I would suggest investigating the man for anemia because of the color of his skin.

Dr. Saxton: Diagnosis agreed with.

Dr. Wilson: I agree with the diagnosis, but not with the treatment, and suggest sulphur, as a local application.

Dr. Kirby-Smith: I would propose that he be given definite instructions for the care and treatment of his feet. To control the immediate symptoms, I would suggest that he use hypo-sulphate of soda, put on three times a day. For purpose of controlling the itching, ultra-violet ray with some X-ray. Patient should be on a vigorous diet, excluding all fats and carbohydrates.

Dr. Andrews (closing): The man is one of our professional men here, whose profession is related to medicine and he was presented for therapeutic advice as to the case.

CASE NO. 3—MORPHEA.

(Presented by Dr. C. A. Andrews)

Miss M. C., female, white, age 60, music teacher. Condition began in the summer of 1930. Patient consulted me on February 28, 1931. Lesions noted over thighs, abdomen and back. Description of dermatosis; classical picture of morphea.

DISCUSSION

Dr. Wilson: Frankly, I don't know what it is. It is not circumscribed as morphea is. It is probably due to glandular dysfunction.

Dr. French: Primary atrophy or secondary form following trauma syphilis or tuberculosis should be considered. Three typical patches of morphea, with their lardatious brawny centets and purple margins occur, and I favor this diagnosis. I would suggest a trial of thyroid gland product, by way of therapy.

Dr. Saxton: Concurring.

Dr. Kirby-Smith: I would diagnose scleraderma. Morphea is a circumscribed scleroderma. I suggest metabolism test and thyroid extract.

Dr. Andrews (closing): This case was diagnosed morphea, by Dr. Fox in the summer of 1930. It is an unusual case in my practice.

CASES NOS. 5 AND 6.

TELANGECTASIS—DUE TO TRICHO TREATMENT.

(Presented by Dr. C. A. Andrews)

Miss H. G., age 28, white, clerk.

Mrs. D. L. H., white, age 31.

Both reecived tricho treatment for removal of superfluous hair. Description: Telangectasia and atrophy of the skin, affecting the lower part of the faces and the forearms of both patients.

DISCUSSION

Dr. French: I would like to nominate Dr. Saxton to draw up a strong resolution against pernicious use of the X-ray for cure of cosmetic defects.

Dr. Wilson: Resolutions won't help. I think a law should be passed in the state prohibiting the use of the X-ray by anyone not a physician.

Dr. Saxton: A resolution on this subject, while in order, will be of no effect. The efforts of the medical profession to get a law on such a subject passed, is "love's labor lost" on account of the ignorance, suspicion and apathy of the public.

Dr. Kirby-Smith: I would suggest that our secretary report these two cases to the Journal of the American Medical Association, as showing the results of tricho system. I wonder how many more, how many hundreds are afflicted by this treatment.

CASE NO. 7.—PITYRIASIS ROSEA.

(Presented by Dr. C. A. Andrews)

Miss V. L., white, age 32, clerk. Patient first seen August 20, 1931. She stated that in June she had quinine injections for supposed malarial infection, bringing on a headache.

Distribution: On trunk, arms and thighs.

Description of dermatosis: On August 20, 1931, there was a generalized macular eruption, dark stained as if undergoing resolution. Laboratory findings: Two Wassermanns were negative. Treatment and results: The patient has had three X-ray treatments (¼ units) and an ointment consisting 2½ per cent salicylic and naftalan. The patient has not cleared up as rapidly as I think she should, and she is worried concerning her condition because of cosmetic appearance.

DISCUSSION

Dr. French: I should investigate this case, from the standpoint of a toxic rash. In addition to a food idiosyncrasy, investigate the pelvic condition following the lead of a left lower hypogastric pain.

Dr. Saxton: The lesions in this case consist of discrete papules, with a more or less erythematous base, or halo. They are in all degrees of development from beginning to healing, or healed, leaving slight pigmentation. The newer ones have the top scratched off, and the skin shows dermographism. Whatever dermatosis she may have had, six weeks ago, I feel satisfied that this is papular urticaria.

Dr. Wilson: This case is at present a plain case of papular urticaria. I have not seen one before in an adult, but this does not alter my diagnosis.

Dr. Kirby-Smith: I agree on present diagnosis as papular urticaria.

CASE NO. 8.—GRANULOMA INGUINALE.

(Presented by Dr. J. J. Saxton)

R. L. C., colored, age 20, laundress. Lesion began as small sore at side of clitoris, three years ago. Has gradually spread around labia majora and into vagina. Had six doses of 606, one year ago, with little effect on lesions. At times had conjunctivitis, which cleared under 606. This is a service case at city hospital, but patient left hospital rather than submit to biopsy. There is also a palm-size lesion on left thigh anterior.

Description of dermatosis: An ulcer surrounds the vulva at the outer margin of the labia majora, also surrounds clitoris, extends into vagina, and around rectum. This ulcer is red and very little cecrotic. It has not the induration of granuloma inguinale.

Laboratory findings: Biopsy refused. Wassermann negative.

DISCUSSION

Dr. French: I believe the patient has syphilitic lymphederma.

Dr. Wilson: She has granuloma inguinale, but I believe, in spite of the negative Wassermann, that the induration is luetic.

Dr. Kirby-Smith: Agree with diagnosis and suggest treatment for syphilis. In seeing this case I can't recall having had in my office, in twenty-one years of practice, a case of inguinale granuloma. Should I have this patient, in private practice, under a general anesthetic, I would thoroughly destroy the ulcerations with diathermy.

Dr. Andrews: I saw this case a year ago with Dr. Saxton, and also later with a surgeon, but the patient has refused treatment. There has been surprisingly little change in the lesions.

Dr. Saxton (closing): The diagnostic thought, in this case, is syphilis, granuloma inguinale, ulcus vuulva acutum (chronicus). If cooperation of

the patient could be secured this condition could be diagnosed positively, or by exclusion, and doubtlessly cured.

Case No. 16.—Trichophytosis.
(Presented by Dr. C. A. Andrews)

E. P. A., white, age 41, theatre manager. Patient first seen on November 25, 1930. Laboratory findings: Spore infection was found under the microscope. Treatment and results: Various ointments, and X-ray were used, and the patient is apparently well, until it re-occurs. The patient feels that this is the result of army service, and is at the present time trying to establish fact for compensation. Duration of dermatosis: A number of years, at times so severely as to incapacitate him from business. Distribution: Between toes of both feet, and scattered areas, face, back, both elbows, left knee and scrotum.

DISCUSSION

Dr. Andrews: This case is just another one of the many that we all see in our offices. At the present time, the condition is giving him very little trouble. At times the lesions are distributed in scattered areas over the face, backs of elbows and knees, scrotum, and always has a well-defined trichophyton infection of the feet. I do not believe that any of us will disagree with the diagnosis. The treatment, in my mind, is a problem that we must still attempt to solve.

Dr. French: I agree with Dr. Andrews in all he says.

Dr. Saxton: Agree with Dr. Andrews.

Dr. Wilson: I agree with Dr. Andrews.

Dr. Kirby-Smith: First of all the diagnosis is not in question, it is tinea. Both ankles show results of too much X-ray. Allow me to suggest for the cure of this patient, and others of the same trouble, use detailed treatment of the feet during the winter time. I have for my own practice, printed treatment instructions for this trouble. All indications are of tinea of the feet and nails, and unless you cure this you will not get anywhere with the treatment of other regions.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

of THE JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION, INC., published monthly at Jacksonville, Florida, for October 1, 1931.

STATE OF FLORIDA, } ss.
COUNTY OF DUVAL. }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Shaler Richardson, M.D., who, having been duly sworn according to law, deposes and says that he is the editor of the JOURNAL OF THE FLORIDA MEDICAL ASSOCIATION, INC., and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Name of Publisher, Florida Medical Association, Inc. Post office address, Box 81, Jacksonville, Fla.

Editor, Shaler Richardson, M.D. Post office address, Box 81, Jacksonville, Fla.

Managing Editor. None.

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3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

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5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is (This information is required from daily publications only.)

FLORIDA MEDICAL ASSOCIATION, INC.,
By Shaler Richardson, Editor.

Sworn to and subscribed before me this 2d day of October, 1931. S. G. Thompson,

(SEAL) Notary Public State of Florida at Large.
(My commission expires April 9, 1932.)

Form 3526—Ed. 1924.

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THE NEXT MEETING OF THE FLORIDA MEDICAL ASSOCIATION WILL BE HELD AT SARASOTA MAY 3-4, 1932

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NOMENCLATURE AND CLASSIFICATION OF GOITER

The American Association for the Study of Goiter in seeking to simplify the nomenclature and classification of this disease takes a step in the right direction, one that deserves the commendation and support of the entire profession.

The fact that the division worked out by the Association is based upon two principles which are conspicuous for their exactness makes this classification not only easy to remember but altogether instructive. On the one hand, the group-

ing deals entirely with the question of the physical aspects of the goiter; while, on the other hand, it is based on the presence or absence of constitutional intoxication. This arrangement calls upon the diagnostician only to arrive at an intelligent estimate of the contour and feeling of the gland and then establish the presence or absence of toxemia before being able to place the goiter into its proper class. Everyone realizes that the ability to segregate a disease into a group is of manifest advantage to a diagnostician in his study of any individual case. The simpler and more intelligent the line of division, the more it furthers the ease of diagnosis. The plan adopted by the Association creates these four types:

Type 1. Non-toxic Diffuse Goiter.
Type 2. Toxic Diffuse Goiter.
Type 3. Non-toxic Nodular Goiter.
Type 4. Toxic Nodular Goiter.

The Association has put its stamp of disapproval upon the use of proper names in the matter of nomenclature. Certainly all doctors should be glad of the opportunity to stand solidly behind that recommendation. The inclination to attach a man's name to a disease or a special symptom, just as is done in the case of a brand of chewing gum or other article of commerce, is deplorable. If that objection is not sufficient to discard its use, then, the fact that such practice forces the doctor to commit to memory a word that is meaningless gives additional reason against its usage. There is nothing in such a custom to aid the student in his work as is the case when some word recalls the anatomy, physiology, or pathology of the subject. It is easy to understand how terms which rivet one's attention to some peculiarity about a goiter are desirable. The minute one hears or sees such words as exophthalmic, hemorrhagic, congenital, etc., it conveys to them some special thing about the goiter in question which sets it apart from other goiters belonging to the same type.

It becomes necessary, then, under this analysis, only to remember not to confuse varieties or sequelae with types. On the one hand, it should be no trouble to remember that such terms as those just enumerated cannot possibly fulfill the demand of supplying constant characteristics about goiters in general and therefore they must apply to varieties only. On the other hand, whether a goiter is diffuse or nodular, can be applied to all goiters; similarly the matter of whether a goiter causes a systemic poisoning or not can be disposed of by the same principle. Surely the American Association for the Study of Goiter should experience little difficulty in having the profession adopt a classification like this which combines the dual principle of simplicity and accuracy.

ACTIVITIES OF AN IMPOSTOR

The attention of the members of the Association is called to the fact that an impostor has been making the rounds of cities in Florida, calling upon doctors and obtaining money under false pretenses.

This man is about forty years old, is 5 feet 9 inches tall and weighs 160 pounds. He wears glasses, has blue eyes and a ruddy complexion. On October 20th, while in DeLand, he was dressed in a dark suit, gray hat and tan shoes and at that time he wore a Shrine pin.

In Key West he represented himself to be Dr. T. H. Bates of Lake City; in DeLand and Tallahassee he posed as Dr. James M. Acker, Jr., of Aberdeen, Mississippi. We know that he has operated in at least six cities: Daytona Beach, DeLand, Key West, Lake City, Orlando and Tallahassee. He is a good talker and has succeeded in securing loans from various doctors as well as getting bad checks cashed.

Any information regarding the activities of such men should be sent promptly to the Business Manager by wire collect so that we may, if possible, be able to apprehend them.

ANNUAL PUBLIC HEALTH CONFERENCE, JACKSONVILLE, DECEMBER 7-10, 1931

The meeting of the Florida Public Health Association promises to be one of the important scientific gatherings of the year. An unusual array of talent of national and international reputation has been secured. City governments will have an opportunity to detail their health workers to hear how the work is done in other places. One of the difficulties experienced by the individual in a more or less isolated community is lack of opportunity for consultations on problems met in the course of the daily routine.

The State Conference has arranged a program which provides a paper or address on each phase of state and municipal health activities. The meeting will occupy four days. Each morning is taken up with a general program of addresses by prominent guest speakers. The afternoons will be used for sectional meetings and round table

discussions on local, municipal and state problems.

The leading features of the first day are the opening address by our Governor on "The State in Public Health", to be followed by Dr. John A. Ferrell, Director of the Health Activities of the Rockefeller Foundation in the United States and president-elect of the American Public Health Association, with an address on "Education and Training of Public Health Personnel." Dr. T. F. Murphy, chief statistician for vital statistics of the U. S. Bureau of the Census, will tell of registration affairs and vital statistics.

Monday afternoon will be devoted to epidemiology and public health nursing.

Monday evening will afford an opportunity to serious-minded sanitarians "to shake a leg" and demonstrate that they are as young as they feel at a reception and dance from 9:00 p. m. to 12:30 a. m.

On Tuesday, the president of the Florida Medical Association, the State Health Officer of Alabama, the Commissioner of Health of Virginia, J. R. McCord of Emory University and one of Jacksonville's heart experts will deliver addresses showing the interrelationship of the medical practice and health work.

Tuesday afternoon promises to be interesting in featuring a child hygiene program with Dr. LeRoy A. Wilkes of the American Child Health Association as the principal speaker. A nationally known authority on public health nursing will address the Conference on the functions of a public health nurse in a state program. There will be schools and sessions for sanitary inspectors, details of which are not complete at time of this writing.

Wednesday morning will have as one of the leading features of the Conference a malaria symposium by Dr. Mark F. Boyd of the Rockefeller Foundation, Director of the Malaria Research Division of the State Board of Health, and Drs. L. L. Williams and T. H. D. Griffitts, of the U. S. Public Health Service. These are three leading authorities on malaria control.

On Wednesday afternoon, the Association of City Milk Inspectors opens a session which continues on Thursday as a milk inspectors' school with Mr. Leslie C. Frank, of the U. S. Public Health Service, and Mr. Ernest Kelly, of the Bureau of Dairy Industry, as the principal speakers.

Doctors interested will be furnished programs on request and are cordially invited to attend.

STATE NEWS ITEMS

Florida physicians, who recently attended the Clinical Congress of the American College of Surgeons included J. C. Davis, Quincy; H. C. Dozier, Ocala; Frank Gray, Orlando; N. M. Heggie, Jacksonville; C. J. Heinberg, Pensacola; B. W. Lowry, Tampa; Robert B. McIver, Jacksonville; Kenneth Morris, Jacksonville; M. A. Nickle, Clearwater; Shaler Richardson, Jacksonville, and H. E. White, St. Augustine.

* * *

Dr. Don S. Fraser of Panama City and Miss Margaret Van Cleve of Lynn Haven, Florida, were united in marriage October 8th. Dr. and Mrs. Fraser have recently returned from an extended motor trip through South Florida.

* * *

There will be a meeting of the Scientific Program Committee at the San Juan Hotel, Orlando, Saturday evening, 6:30, November 28th. Dr. O. O. Feaster, St. Petersburg, chairman of this committee, is planning to notify those who are to present papers at our annual meeting in Sarasota as quickly as possible in order that ample time may be given for careful preparation. If you are desirous of a place on the program, and have not already made application, wire Dr. Feaster, Power and Light Building, St. Petersburg.

* * *

Dr. J. Knox Simpson of Jacksonville will attend the meeting of the Southern Surgical Association in White Sulphur Springs, West Virginia, December 10, 11 and 12.

* * *

Dr. F. Peter Herman of West Palm Beach and Miss Lucille S. Williams were married in West Palm Beach on September 25, 1931.

* * *

Dr. J. D. Stuart of Miami is now located at 227 N. E. 5th Street. Dr. Stuart was formerly located at 127 N. E. 5th Street.

* * *

The new Saint Anthony's Hospital, St. Petersburg, with Mother Mary Magdalena in charge, opened the first part of November. This hospital has a bed capacity of approximately seventy.

* * *

Dr. and Mrs. J. R. Boulware, Jr., Lakeland, announce the arrival of James Richmond Boul-

ware III, born October 2nd at Morrell Memorial Hospital. His great grandfather was Dr. James Richmond Boulware, a surgeon in the Confederate Army.

* * *

Dr. and Mrs. Max Ghertler, Miami, have returned to their Shenandoah home after quite an extended visit to New York.

* * *

Dr. Jack Halton, Sarasota, was recently appointed associate editor of American Medicine and International Journal of Surgery.

* * *

Dr. Franklyn Thorpe, formerly of Tampa and a member of the Florida Medical Association until 1930 when he moved to Los Angeles, was married to Mary Astor, screen star, June 29, 1931.

* * *

Dr. J. H. Fellows of Pensacola has just returned from a trip to the Middle West. Dr. Fellows attended clinics in St. Louis during his absence.

* * *

Dr. Harry Dash Johnson, 350 S. Palmetto Avenue, Daytona Beach, has returned from Bretton Woods, N. H., and will resume his practice this winter.

* * *

Born to Dr. and Mrs. Paul K. Jenkins of Miami Beach, a baby girl, September 29th, at the Jackson Memorial Hospital.

* * *

Dr. C. B. Wilson, Dr. J. E. Harris, and Dr. Joe Halton, of Sarasota, have just returned from vacations and post-graduate courses in New York.

* * *

Dr. Leigh F. Robinson of Ft. Lauderdale was recently elected to associate fellowship in the American Proctologic Society.

* * *

The ladies of the Auxiliary gave a bridge party in honor of the Volusia County Medical Society on October 27th.

* * *

Dr. James F. Curry of Dunnellon and Miss Neva Williams were united in marriage at Inverness, Florida, on August 1, 1931.

* * *

Dr. E. Clay Shaw of Miami has returned from a three months' sojourn abroad. He visited the various urological clinics in Great Britain, Norway, Sweden, Holland, France, Germany and Italy.

* * *

Dr. W. C. Page, Cocoa, spent considerable time this summer in post-graduate work at the New York Polyclinic Hospital.

* * *

The quarterly meeting of the Second District Medical Society was held at the Florida State Hospital, Chattahoochee, Thursday, October 8th, at 3 p. m. Dr. W. W. Massey of Quincy, vice-president, presided in the absence of Dr. J. F. Williams, president. Dr. Mark F. Boyd read a paper on "Some Observations on Induced Malaria." This paper was discussed by Drs. J. G. Gainey and W. W. Massey of Quincy. Dr. J. C. Robertson, Chattahoochee, read a paper on "Treatment of Diabetic Coma." Dr. M. C. Wilensky, Chattahoochee, read a paper on "Glaucoma." This paper was discussed by Drs. H. M. Moore of Thomasville, Georgia, and O. G. Kendrick of Tallahassee. Dr. J. G. Gainey of Quincy read a paper on "Malignant Malaria a Causative Factor in Hematura in the Newborn with Report of Cases"; discussion by Dr. M. F. Boyd and others. Dr. B. A. Wilkinson of Tallahassee read a paper on "Scleroderma." At the business meeting which followed, Dr. W. W. Massey, Quincy, was elected president; Dr. B. A. Wilkinson, Tallahassee, vice-president; Dr. O. G. Kendrick, Tallahassee, secretary-treasurer; scientific program committee, Drs. W. W. Massey, J. H. Pound and O. G. Kendrick. Following the business meeting, a chicken fry and dance for the benefit of doctors, their wives and guests took place and a very pleasant evening was enjoyed.

* * *

Dr. and Mrs. Julian Leo Hargrove of Bartow announce the birth of a daughter, Dorothy Waldo, on August 8th at the Polk County Hospital.

* * *

Dr. Sheldon Stringer has resigned the superintendency of the Tampa Municipal Hospital, his resignation effective November 1, 1931. Dr. Stringer will devote his entire time to re-establishing his practice.

* * *

Announcement has just been received that applications must be on file with the United States Civil Service Commission at Washington, D. C., not later than December 30, 1931, for United States Civil Service examinations for Senior Medical Officer, $4,600 a year; Medical Officer,

$3,800 a year; and Associate Medical Officer, $3,200 a year. If interested, refer to Bulletin No. 170 (Unassembled).

* * *

Dr. R. E. Repass is now located at 835 Lincoln Road, Miami Beach. Dr. Repass was formerly located at 337 Lincoln Road. His practice is limited to ear, throat and sinus diseases.

* * *

A very interesting meeting of the Orange County Medical Society was held the evening of October 21st at the Orange General Hospital. Dr. William Ross of Jacksonville read a paper on "Milk, with Special Reference to the Value of Certified Milk to the Individual and a Certified Dairy to a Community." Dr. J. H. Chiles of the Orange County Medical Society read a paper on "Infantile Impetigo Contagiosa." The Society voted to give an examination to all the students in the Junior High Schools to note defects and a cup will be awarded to the school which has the greatest percentage of these defects corrected at the end of the year.

* * *

Born to Dr. and Mrs. Leland H. Dame of Inverness a baby girl on October 3, 1931.

* * *

Dr. B. W. Lowry, Tampa, Dr. Kenneth Morris, Jacksonville, and Dr. C. J. Heinberg, Pensacola, were recently elected into the American College of Surgeons at their convocation in New York.

* * *

Dr. Nelson M. Black has returned to Miami after six weeks spent in Milwaukee, Wisconsin, during which time he attended the annual meeting of the American Academy of Ophthalmology and Otolaryngology at French Lick, Indiana.

* * *

The Pinellas County Medical Society at its regular meeting October 15th had the pleasure of an address, "Crime and Its Relation to the Medical Profession", by Dr. Carlton Simon, criminologist of New York City.

* * *

Dr. Rosalie Slaughter Morton of Winter Park recently returned from a vacation spent in New York.

* * *

Dr. Y. C. Lott of Miami returned recently from a trip north, having done post-graduate work at the New York Polyclinic Hospital.

* * *

Dr. Nicholas P. Myers announces the removal of his office to Bradenton, Florida. Dr. Myers was formerly located in Dowling Park.

* * *

The Central Florida Medical Society held its semi-annual meeting at the Highlands Club House, Ocala, Florida, Thursday, October 15. Dr. E. G. Lindner of Ocala, president of the Marion County Medical Society, gave the address of welcome. Dr. Gaston H. Edwards, Orlando, president of the Florida Medical Association, read a paper on "The County Society." Dr. J. Ralston Wells, Daytona Beach, secretary of the Public Relations Committee of the State Association, read a paper on "The Public Relations Committee's Activities." A twenty-minute period for discussion was allowed following each paper. The meeting was well attended.

* * *

Drs. John E. Boyd and E. T. Sellers of Jacksonville and Dr. A. F. Higgins of Tampa were guests of honor at the Volusia County Medical Society's first fall dinner meeting, October 13th. Dr. Boyd and Dr. Sellers led a discussion on "Medical Ethics." The meeting was in charge of Dr. R. L. Miller of Daytona Beach, president of the Society, Dr. J. E. Taylor, DeLand, vice-president, and Dr. J. Ralston Wells, Daytona Beach, secretary-treasurer.

* * *

Dr. M. A. Lischkoff of Pensacola recently returned after a pleasant vacation which included the meeting of the American Academy of Ophthalmology and Otolaryngology in French Lick, Indiana.

* * *

The first radio broadcast of the association over station WRUF was given on October 14th by Dr. Edward Jelks of Jacksonville. His subject was "Some Interesting Medical History in Florida." The music which interspersed the broadcast was furnished by Mrs. Theo. Croft of Jacksonville. The broadcast went over very satisfactorily and was well received all over the state.

* * *

Dr. and Mrs. D. A. McKinnon of Marianna recently entertained Mrs. Ed Ingram and little son of Jonesboro, Tennessee, as house guests.

* * *

Dr. and Mrs. Walter T. Hotchkiss returned to Miami Beach early in October after spending the summer visiting the Cleveland Clinic, Ann Arbor Clinics and the Mayo Clinic. They also attended the annual meeting of the American Academy of

Ophthalmology and Otolaryngology at French Lick, Indiana.

* * *

Dr. H. E. Palmer of Tallahassee, dean of the medical profession in that city and a member of the State Board of Health, celebrated his 39th anniversary as a practicing physician of Tallahassee recently and was host to a number of local physicians and friends at a dinner in his home.

* * *

A regular meeting of the Polk County Medical Society was held Wednesday evening, October 14th, at the City Hospital, Bartow. Dr. Kenneth Phillips of Miami read a paper on "The Essential Nature of Bronchial Asthma." The society met as guests of the hospital and of Dr. C. J. Hurlburt, the superintendent. Dr. G. H. Edwards, president of the state association, delivered an address on "Cooperation of Individuals and of County Societies as a Means of Benefit to Them and to the State Association." Other guests of the society were Dr. W. H. Spiers of Orlando, Dr. E. B. Maxwell of Miami, and Dr. J. W. Alsobrook of Plant City. The meeting was unusually interesting and the attendance above the average. The visiting guests added to the good fellowship which was enjoyed by all present.

* * *

Dr. and Mrs. Cayetano Panettiere have returned to Miami Beach from spending part of the summer in Baltimore. They also attended the Interstate Post-Graduate Medical Association of North America at Milwaukee, Wisconsin.

* * *

Dr. E. A. Carter of DeLand was recently appointed county physician of Volusia County, succeeding Dr. J. E. Taylor.

* * *

The Brevard Hospital Association, incorporated not for profit, has acquired the Melbourne Hospital of Melbourne from Dr. I. M. Hay, and will operate same as Brevard Hospital; Dr. Hay to remain as surgeon in charge.

* * *

The second broadcast over WRUF was given November 11 by Dr. T. Z. Cason of Jacksonville, whose subject was "The Florida Medical Association: What It Is and the Value of Its Influence to the State." Miss Susan O'Hara, who recently won the Atwater Kent competition for the Jacksonville district, was heard in a series of musical numbers which preceded the medical discourse.

Dr. W. C. Payne of Pensacola has just returned from a trip to Atlanta, where he attended several clinics.

* * *

The following officers were elected at a recent meeting of the Pinellas County Medical Society: Dr. O. O. Feaster, president; Dr. L. M. Gable, 1st vice president; Dr. W. G. Post, Jr., 2nd vice president; Dr. Alvin L. Mills, secretary; Dr. George E. Miller, treasurer. The meeting night was changed from every other Friday to every other Thursday; the meetings to be held in the Assembly Room on the fifth floor of the Power and Light Building.

* * *

The Sixteenth Annual Clinical Session of the American College of Physicians will be held in San Francisco, California, April 4-8, 1932. The headquarters in San Francisco will be the Palace Hotel, where the general scientific sessions, registration, and exhibits will be held. Clinics will be conducted in various hospitals and institutions in San Francisco and nearby communities. Dr. S. Marx White, Minneapolis, president of the college, has in charge the selection of speakers and subjects on the general program, while Dr. William J. Kerr, San Francisco, professor of medicine at the University of California Medical School, is the general chairman of the session, and is responsible for all local arrangements, in addition to the arrangement of programs and demonstrations. Following the San Francisco session, a post-convention tour will be conducted through Yosemite Valley, Southern California (with two days in Los Angeles), and the Grand Canyon of Arizona.

* * *

Dr. R. E. Wilhoyte, Lake Wales, was away during the summer and did post-graduate work at the New York Polyclinic Hospital.

* * *

Applications for position of principal physiological chemist must be on file with the United States Civil Service Commission at Washington, D. C., not later than December 1, 1931. The examination is to fill a vacancy in the Bureau of Construction and Repair, Navy Yard, Washington, D. C., and vacancies occurring elsewhere. The entrance salaries range from $5,600 to $6,400 a year. Competitors will not be required to report for examination at any place, but will be rated on their education, training and experience.

Dr. and Mrs. Joseph H. Lucinian of Miami have returned from the North after a six weeks' absence. Dr. Lucinian spent several weeks at the Mayo Clinic X-ray department. Later he attended the American Roentgen Ray Society meeting in Atlantic City.

* * *

Dr. and Mrs. A. M. C. Jobson of Tampa recently returned from Mexico City, Mexico, where Dr. Jobson presented a paper to the Pan-American Clinical Congress and visited some of the clinics.

* * *

The Public Relations Committee held a business meeting at Gainesville, Thursday, October 8th. Those present were as follows:

George Dame	Inverness
H. C. Dozier	Ocala
G. H. Edwards	Orlando
Ralph Greene	Jacksonville
Henry Hanson	Jacksonville
John S. Helms, Sr.	Tampa
J. M. Irwin	St. Augustine
Edward Jelks	Jacksonville
Ernest Milam	Jacksonville
Shaler Richardson	Jacksonville
J. A. Simmons	Arcadia
H. Mason Smith	Tampa
W. H. Spiers	Orlando
W. C. Thomas	Gainesville
Stewart Thompson	Jacksonville
G. C. Tillman	Gainesville

* * *

Dr. Ralph N. Greene of Jacksonville was recently elected president of the Aero Medical Association of the United States at a convention held in Kansas City. Dr. Greene for many years has been intensely interested in aeronautics and holds a transport pilot's license. He is local representative of the National Aeronautical Association.

* * *

On Friday evening, October 2d, at 8:00 p. m., the Duval County Medical Society held an informal smoker at the Mayflower Hotel, Jacksonville. Dr. Robert A. Strong, professor of pediatrics, Tulane University, was the guest of honor, his subject being "Our Newer Knowledge of Nutrition." Dr. Strong also presented a series of talking, moving pictures, the subject of which was "The Preparation of Infant's Foods." Following the scientific program, a buffet supper was served. About one hundred fifty members and guests were present.

WANTED: Location or partnership in Florida town, 5,000 or over, by man aged 40. Five years' Florida experience. Have $3,000.00 worth of equipment, modern X-ray. Do general practice and surgery. Address P. O. Box 301, St. Marys, West Virginia.

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△	0.56-0.61	0.56
Electrical Conductivity	0.0022-0.0024	0.0023
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Caloric Value:		
per 100 c. c.	68.0	68.0
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According to present indications, the Florida Auxiliary will be well represented at the S. M. A. Convention, which meets in New Orleans November 18-20. Among those expecting to attend are: Mrs. S. E. Driskell, of Jacksonville, state president; Mrs. J. Ralston Wells, of Daytona Beach, past president; Mrs. L. F. Robinson, of Ft. Lauderdale, president-elect; and the following from Jacksonville: Mrs. E. W. Veal, president of the Duval County Auxiliary; Mrs. Luther Holloway, Mrs. Neil Alford, Mrs. H. D. Van Schaick, Mrs. Edward Jelks.

* * *

DUVAL COUNTY

The Woman's Auxiliary to the Duval County Medical Society held its annual meeting Wednesday afternoon at the home of Mrs. L. V. Tyler, in South Jacksonville.

The president, Mrs. William W. Kirk, presided. Activities of the past year were reviewed and officers for the coming year elected. Mrs. E. W. Veal was chosen president, with the following board: Mrs. Henry Hanson, vice president; Mrs. Chas. L. Jennings, secretary, and Mrs. S. R. Norris, treasurer.

It was decided to entertain the Duval County Medical Society at the close of their annual meeting.

Dr. Ralph N. Greene gave an interesting talk, after which a social hour was enjoyed.

HERE

is one of the advertisements of The Sugar Institute

THE advertisement reproduced here is one of the series appearing in newspapers throughout the country. In order to keep the statements in accord with modern medical practice, they have been submitted to and approved by some of the leading authorities in the field of human nutrition in the United States. The Sugar Institute, 129 Front Street, New York.

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Try a dash of sugar to season pot-roasts, braised lamb and veal, stews and meat loaf. In boiling corned beef or ham, add a half cup of sugar, more or less, to the water. "A dash of sugar to a pinch of salt" is also a fine seasoning for many fresh or canned vegetables. Flavor and season with sugar. The Sugar Institute.

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ONE Easter vacation in 1856, 17-year-old William Henry Perkin, a student-assistant in the Royal College of Chemistry, was toiling in an improvised laboratory under the eaves of his English home.

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VOLUSIA COUNTY

The Volusia County Auxiliary met for the first time this fall, on Tuesday, October 13, in Daytona, at Spiro's Grill. After a delightful dinner here, the members adjourned to the home of Mrs. J. Ralston Wells, where a most interesting meeting was held. Reports of the Auxiliary A. M. A. meeting in Philadelphia were given by Mrs. Wells and Mrs. Rutter. It was decided to give the members of the Volusia County Medical Society two parties this year instead of one. (Evidently no depression in Volusia!) The first of these parties was given on October 26th, at the home of the president, Mrs. L. V. L. Brown of DeLand.

* * *

The historian of the Florida Auxiliary, Mrs. J. M. Irwin, of St. Augustine, has compiled an excellent Scrap Book, which the Florida Auxiliary will be most proud to exhibit at the S. M. A. meeting.

* * *

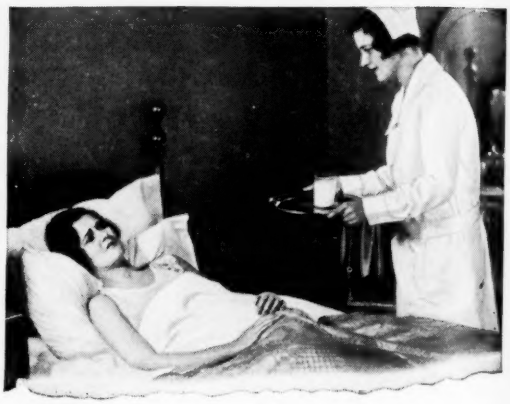
These items were sent us by Mrs. Milton P. Overholser, of Harrisonville, Missouri, chairman of press and publicity for the Auxiliary to the A. M. A.:

"Our national president-elect, Mrs. Walter Jackson Freeman, of Philadelphia, went to Europe the first of August, expecting to return the first of September, but has been detained indefinitely by the illness of her son, who is laid up in Munich with an attack of inflammatory rheumatism. However, Mrs. Freeman is taking care of her department in the Bulletin of the American Medical Association.

Every physician who receives the Journal of the American Medical Association also receives the monthly Bulletin, which carries the national Auxiliary news. If we cannot train our husbands to bring home this Bulletin, we might subscribe for it ourselves, since it will be sent to any address for 50 cents per year.

Our national president, Mrs. A. B. McGlothan, attended the annual meeting of the Auxiliary to the Kentucky State Medical Society, Lexington, Ky., Sept. 7-10. She reports many interesting features of that Auxiliary. Each month from four broadcasting stations, a ten-minute health talk is given. Various physicians of the State Medical Association are selected to give these talks. This Auxiliary promoted a contest, carried on in ten counties, in which a prize was given to the school boy or girl writing the best essay on the value of a County Health Unit.

If your Auxiliary is not informed of the nature and value of the County Health Unit, devote



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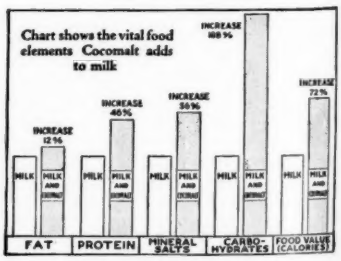

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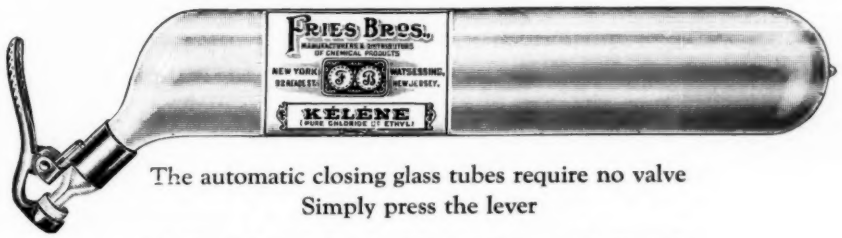

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a meeting to the use of the Study Program on that subject, supplied by the national Auxiliary.

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The Woman's Auxiliary Department, in the Florida State Journal, has given its readers recently, in two consecutive months, interesting reports of the Philadelphia Convention. One dealt with the convention at work and the other with the convention at play. Such reports help to create an interest in the Auxiliary as an organization with national significance."

ADVERTISERS' NOTES

Recipe for Cooking Mead's Cereal

When cooked according to the following recipe, and served with milk, Mead's Cereal is eagerly accepted by infants:

Place 2 rounded tablespoons Mead's Cereal and 1 cup *cold* water in upper section of double boiler, mixing with fork or wire whip. Place over direct flame for 10 minutes, while stirring. Replace upper section over lower section of double boiler and continue cooking for ½ hour the night before, and ½ hour before serving, stirring occasionally, or, leave double boiler over "pilot" gaslight until morning. This makes a day's supply for the average infant. Number of tablespoons fed is increased from 2 tablespoons, according to age.

For older children, the consistency may be increased by using ½ cup of Mead's Cereal and 2 cups water (2 to 3 portions). Served with cream and sugar, Mead's Cereal deliciously supplies the growing child with protein, fat, carbohydrate, calories and, what is more important—*calcium, phosphorus, iron, copper and other essential minerals.*

* * *

Histories of medicine are replete with romantic accounts of weird beliefs that appear ridiculous in the light of our present knowledge. When Darwin's *Origin of Species* appeared, in 1859, the scientific men of that day were still having controversies on the origin of life. Such men as Pasteur and Koch laid the foundation for many of the brilliant researches that followed their day. The nineteenth century saw many improvements in surgical practice, thanks to anesthesia, antiseptics, and asepsis. Morton demonstrated ether anesthesia in 1846. Ether continues to be a boon to humanity, its benefits more recently improved through the use of sodium iso-amyl ethyl barbiturate, a product of the research division of the Lilly Laboratories, known as Pulvules Sodium Amytal. Sodium Amytal exerts a hypnotic, sed-

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THE NEXT MEETING
OF THE
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ASSOCIATION
WILL BE HELD AT
SARASOTA
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